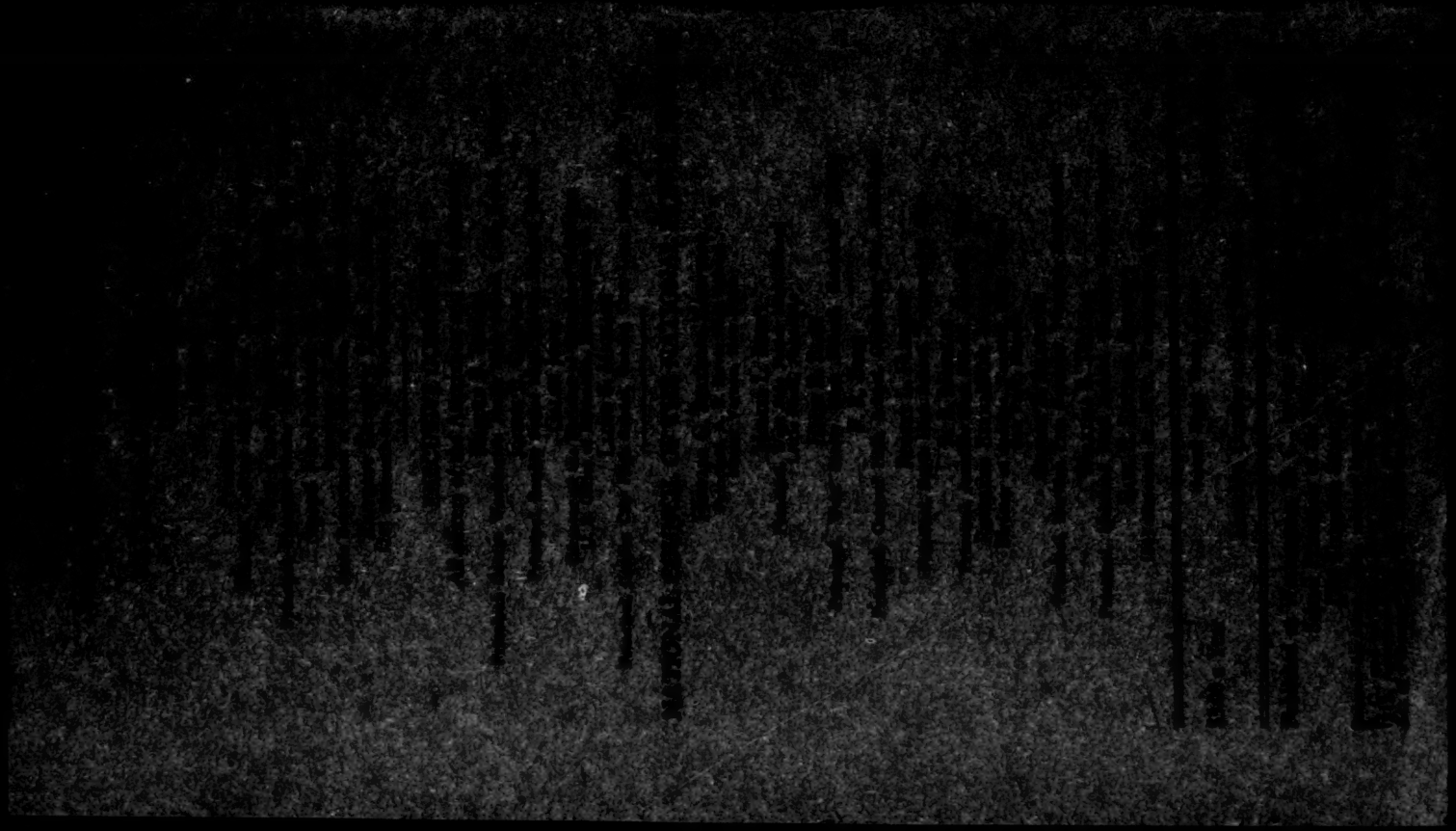

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The Bulletin

OF THE NATIONAL ASSOCIATION OF

Secondary-School Principals

A Department of Secondary Education of the
NATIONAL EDUCATION ASSOCIATION
Issued Monthly, October to May Inclusive

Volume 32 **MAY, 1948** **Number 155**

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THE NATIONAL ASSOCIATION OF SECONDARY-SCHOOL PRINCIPALS

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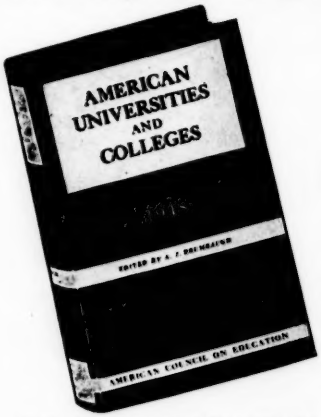

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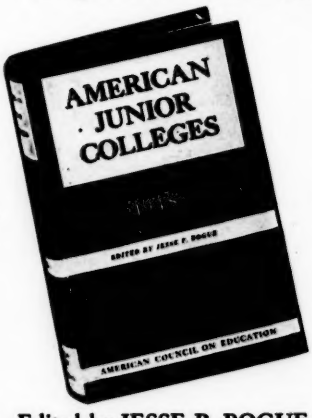

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Secondary School Programs for Improved Living

Foreword

ABOUT eight years ago the Alfred P. Sloan Foundation gave grants-in-aid to the University of Kentucky, the University of Florida, and the University of Vermont for the purpose of conducting an experiment in applied economics. Each of these institutions agreed to devise and administer an experimental program designed to discover whether school instruction in the regularly approved subjects could be so conducted as to raise the level of living in the community. In Kentucky, it was decided that matters relating to food should receive the major share of attention; in Florida, housing was to serve as the area of concentration; and, in Vermont, clothing was selected as the basis for the experimental work. In the early years of the experiment, major emphasis was placed on the program at the elementary level; however, with the co-operation of various organizations, including the National Association of Secondary-School Principals, certain experimental work has been extended to the junior high-school and the high-school levels. These constantly expanding activities and ever-widening interests have resulted in the preparation of new materials to be used in the upper grades. This bulletin represents a compilation of some of the more significant contributions of many persons in various schools throughout the nation. Some of these schools have been working directly in the Sloan Experiment in Applied Economics, while others have developed materials upon their own initiative. It is hoped that the suggested activities and units presented in this bulletin will stimulate other administrators and teachers to think about problems of youth dealing with food, shelter, and clothing, and about the improvement of community living in general.

Although schools are obviously the normal agency for economic betterment, too few schools have developed programs which are in any way concerned with community economic problems. The results of such community

school programs, when they have been instituted, have proved beneficial not only to the communities but also to the schools themselves. Boys and girls who study community problems and the resources available for the solution of these problems have an exciting motive for learning. The communication skills, the number skills, and the social skills find a functional frame of reference in the study and solution of problems of living which are common to every boy and girl.

Frontier thinkers in the field of curriculum development have felt for some years that a shift in orientation from the subject basis of planning to curriculums centered in areas of living would constitute a significant step in the right direction. Some secondary schools, because of superior leadership, excellent school staffs, and other favorable conditions, are working toward a rather complete reorganization of the curriculum in terms of the discovered needs of youth. Other schools have felt that a complete curriculum reorganization would be an unwise move; these schools have considered a step-by-step approach more feasible. Regardless of the type of curriculum reorganization, administrators and teachers have displayed a large amount of interest in units which have been developed and activities which have been employed in the study of the problems of youth centered about food, shelter, and clothing.

During the preparation of this bulletin one question has been foremost: "What are the possible uses of this material for school administrators and for the secondary-school teachers?" As has been indicated, some schools may find in this bulletin suggestions which will be helpful in planning learning experiences to meet the needs of youth. Units and activities might serve as patterns upon which teachers could base other units and activities applicable to their own situations. It is hoped, however, that the material presented here will not be used as a set guide; for these activities, units, and bibliographies have been developed to meet the needs of boys and girls in specific localities. Each community presents its own peculiar problems; and, if this material is to be used to the best advantage, each teacher and each school should adapt the units and activities of the curriculum to the problems at hand.

The publication of this material concludes the activities of the Advisory Committee on Applied Economic Education of the National Association of Secondary-School Principals. Service on this committee with the opportunity it provided to work with the group of educators associated with the Sloan Experiment was a most stimulating experience for the committee members. The committee[1] hopes that through this publication and through the May,

1946, issue of *The Bulletin:* "Education for Improved Community Living," it has transmitted to others some of its enthusiasm for community-centered content for the high-school curriculum.

The committee desires me to express its thanks to Miss C. Ruth Hillis, to Mrs. Mary J. Patterson, and to Dean Maurice F. Seay—all of the University of Kentucky—who edited the materials appearing in this bulletin.

WILL FRENCH
Chairman, Advisory Committee
on Applied Economic Education

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I. Making Schools Effective for Improved Living

E. A. WATERS

RECENT issues of *The Bulletin,* in common with many other publications, professional forums, and official committee reports, have called fresh attention to the educational needs of youth and to curricular practices designed to meet these needs adequately. A principal purpose of the discussions which follow is to continue examination of the general question. "What should our public schools do for those they serve and in what better ways can our schools discharge this responsibility?" The authors of the following discussions do not, of course, assume to set forth the final answer to this question—there being, in all probability, no one answer. But rather, it is the purpose of the authors to emphasize certain needs of youth and the consequent functions of public education that too often receive little attention.

MEETING THE NEEDS OF ALL

If concensus can be soundly judged from what is written and said by prominent educators and representatives of our chief educational organizations, it seems safe to assume there is common agreement that our public schools have as their principal function helping people attain a satisfactory quality of personal, social, economic, and moral life. This is *not* a new function or a new agreement. Elements of this function and agreement are as old as are our public schools. But new elements, new meanings, and clarification of this function have slowly evolved and have been included in recent discussions of the purposes of the public schools. It is, unfortunately, less common to find these newer elements and concepts actually forthrightly incorporated in the design of our public school programs. Although this lag of practice behind accepted function is understandable, it is not satisfying, and it is not suitably explained by the usual reference to the necessary gap between theory and practice. For it is no longer pure theory that our public

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schools should directly contribute to betterment of the personal, economic, and social life of those served—it is common agreement. Neither is it mere theory that our public schools should serve all children and all people to equal advantage—this too is accepted as a practical function of the public schools. In short, there is general acceptance of the thesis that our program of public education should be shaped and conducted in terms of the needs of all those it is intended to serve. As a corollary it should be said that the *fundamentals* of education are those activities which are true means of meeting the personal, social, and moral needs of people.

But, as has just been said, our public schools do not serve all people, even all children, to equal advantage and equally well. As one educator has expressed it:

> No community in the world has yet designed schools for all the people. Many communities are attempting to force all the children to attend schools that were designed for a small part of the population. The small group of verbal-minded children who learn rapidly from little black dots have schools that have been designed for them. The millions of children who would learn best from contact with real things or from people do not have schools that have been designed for their special interests.[1]

The history of American public education makes clear but does not justify the reasons for this restricted design and consequent shortage in the service of our public school program. It is critically important that the major emphasis in our schools—the teaching of subjects—be broadened to include the teaching of such matters as how to get along with others, how to make the best *uses* of what we have, and how to become a contributing force for the betterment of our economic, social, and moral life. It is true that some progress has been made in these directions. Such well-known highlights of the history of American public education as Franklin's "useful subjects," organization of the Commission on the Reorganization of Secondary Education and its report, the Cardinal Principles, the contributions of the Progressive Education Association, and the recent reports of the Educational Policies Commission chart the trend from a program dominated by intellectualism to a more directly functional educational program.[2]

It is probable that some of the confusion, or at least the lack of forcefulness, in current attempts to develop school programs in harmony with the educational trend just referred to, arises from the assumption that but

[1]Harold F. Clark, "School for all the People." *The Bulletin of the National Association of Secondary-School Principals*, Vol. XXX, No. 139, (May, 1946), pp. 7-16.

[2]Gordon N. MacKenzie, "High School Education for Better Personal and Community Living," *The Bulletin of the National Association of Secondary-School Principals*, Vol. XXX, No. 139, (May, 1946), pp. 17-35.

two alternatives exist in its connection. The protagonists of *intellectualism* and those of *usefulness* in education seem to assume there is no common ground on which they might proceed to build an educational program more suitable to the needs of all youth and adults. As a consequence of this either-or attitude, it is common to find school programs which reflect the official nod of approval to one or the other of these two points of view—the official nod usually going to conventional subject-matter organization of the school program because of its prestige gained in part from historical practice and respectability.

The lack of knowledge and experience with educational programs geared to the needs of all youth is another of the factors which accounts for the slowness with which conventional school programs are modified. The pattern, organization, and administration of an educational program aimed at intellectual development are assumed to be well known, and departures from this program and its subject-matter organization involve a venture into the unknown with all its attendant risks and difficulties. If a school program is to be so designed as to serve all of its people equally well, what shall be the referent upon which it is based or around which it is organized? If organization in terms of conventional subjects is inadequate, what other reference points are desirable and practicable? It is assumed here and in the discussions which follow that these reference points should be the areas in which fall the common, day-to-day problems of living. The considerable agreement which has developed as to the nature of these areas and as to the common problems within them is reflected in the following statement:

> There is some disagreement as to what the most important areas of living are. This discussion and disagreement is all to the good. However, beginning almost a generation ago with the report of the Seven Cardinal Principles of education, there has grown up remarkable agreement as to what some of the most important areas of living would be. The Seven Cardinal Principles, as all will remember, were health, work, leisure, worthy home membership, citizenship, ethical character, and command of the fundamental processes.[3]

Regarding most of these items there would be little disagreement. In every recent list of educational purposes that has been drawn up, there is included reference to the betterment of personal and home life. Certainly most would agree with the following statement that the problems and activities associated with securing a satisfactory quality of food, clothing, and shelter occupy a major portion of all people's time, attention, and energy:

[3]Harold F. Clark, *op. cit.*, p. 11.

> In any typical community in the United States in normal times, a study will show that from half to two thirds of the expenditures of the average family will go to food, clothing, and shelter. In fact, for the average family in the United States two thirds of all its effort, time, and money goes to providing food, clothing, and housing. If a school system is to be built around the important areas of living, it would seem imperative that a very large amount of time would be given to factors that occupy two thirds of the time of the average family. This is the situation not only in our own country but also around the world.[4]

It will be recognized by the thoughtful person that organization of a portion—perhaps the major portion—of an educational program around the economic affairs of living has broader possibilities of application than merely to schools which serve below-average income groups. For, upon reflection, it becomes clear that such matters as housing, the complexities of adequate food supply and utilization, and wise use of resources are problems pertinent to the welfare of all people without regard to their economic status. The fact that these problems are universal illustrates the principle that the social and economic structure of a people conditions the character of its educational program but not the character of its basic needs. Considerable experience with a method by which school programs can be geared to the basic needs of those to be served has already been gained and the results reported are encouraging. Reports on such experiences are available in such publications as those of the University of Kentucky's Bureau of School Service relative to the Alfred P. Sloan Foundations experiment in applied economics. *The Southern Study,* issued by the Southern Association of Colleges and Secondary Schools, is the report on the attempts of thirty-three schools in the Southern region to organize programs based upon the primary needs of the people served by these schools.

Perhaps here, then, is a true referent for organizing some of the fundamentals of a program of public education. This seems especially true if "fundamentals" are defined as the direct means of meeting the day-to-day needs of people. As has just been pointed out, some schools have also demonstrated the results that can reasonably be expected to come from curricular organization with reference to this center. In the following paragraphs some of these consequences will be described in detail together with suggestions as to first steps that have been found practical as beginning points in such program organization.

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[4] *Ibid.*, pp. 11-12.

II. Activities in Secondary Education for Economic Betterment

ONE of the outstanding achievements of the modern secondary school is the substitution of activity for passivity. Gone are the days when pupils sat still and learned; they now learn through talking, singing, building, acting, and playing, as well as through reading. Teachers and administrators recognize the fact that pupils need experiences involving activity. The activity program, by whatever name it may be called, has become increasingly significant, not merely because the boys and girls prefer action, but also because they learn more through activities.

The teacher can promote learning by providing for individual differences through new and different activities and by seeing that pupils of varying abilities have challenging assignments. Every boy and girl should be helped to achieve to his or her capacity; each should have materials which utilize his whole ability. And since not all learning is individualized, the teacher should also provide for socialized, varied group activities.

The activities which are presented in this section illustrate the manner in which teachers and classes in various schools are using topics connected with food, shelter, and clothing in the planning of learning experiences to meet the needs of youth. This group of activities should not be considered as an exhaustive summary, but merely as a brief view of some of the more interesting classroom experiences in the area of community economic betterment. The reader may find that certain of these activities would not be practicable in his own particular locality; however, the ideas and suggestions presented here should open new avenues of thought for many secondary-school teachers. These activities are not the result of the thinking of armchair theorists, but are the actual classroom practices of teachers from secondary schools throughout the entire nation.[1]

[1]Section V contains a bibliography of instructional materials which have been used in school programs for economic betterment.

ACTIVITIES CENTERED ABOUT FOOD PROBLEMS

Improved Breakfasts for Improved Health

A group of boys and girls in an urban community agreed that their year's objective was to help each pupil understand that health depends upon everyday living. To reach this objective, the boys and girls learned what they should eat to maintain maximum health. They checked to see how nearly they were eating as they should, and to find wherein their diet was defective. They evaluated their diet by classifying the school luncheon as to carbohydrates, minerals, proteins, fats, and vitamins. From this evaluation they determined what they needed in order to bring their daily requirements up to recognized standards. It was evident that breakfast was the poorest meal the pupils had. To prove the effects of poor breakfasts, an experiment was set up in which one group of white rats was given balanced, well-planned breakfasts, and another group was given unbalanced, inadequate breakfasts. At the end of three weeks the resulting growth of the first group proved convincingly the worth of a well-balanced breakfast. Both boys and girls learned to plan and prepare good breakfasts in cooking classes. When the breakfasts were served, the pupils gained practice in the table manners which they had been studying along with their study of diet.

Topics studied: (1) daily lunches, (2) types of breakfasts, (3) table setting and table manners.

Activities employed: (1) making notebooks of menus for school lunches, (2) writing words for songs about food, (3) making weight charts, (4) setting a table, (5) practicing table manners, (6) experimenting with white rats concerning proper and improper diets, and (7) preparing and serving breakfasts.

Budgeting the Food Dollar

In the junior high-school class, the pupils were interested in budgeting their money, so as to spend it to the best advantage. They read from all available sources to find what part of the family income should go for food, for shelter, for clothing, and for other expenses. They were most interested in the food item and read further to see what part of each dollar should go for meats, cereals, fats, dairy products, sweets, fruits, and vegetables. The percentages were worked out on the basis of a weekly income of thirty to forty dollars for a family of three. Menus were planned, with the daily requirements for a balanced diet always in mind.

Topics studied: (1) budgeting, (2) food types and values, (3) well-balanced diets.

Activities employed: (1) making questions about budgeting and reading to find the answers, (2) making weekly budget on the basis of a weekly salary of thirty to forty dollars, (3) making menus, (4) copying and comparing recipes, (5) experimenting in weights and measures of canned foods, (6) reading labels to evaluate contents and to detect adulteration of packaged foods, (7) writing letters for free materials, (8) making friezes, and (9) making charts.

Chickens Come to School

After reading the Sloan books on chickens, one class decided to raise chickens at school. Parents and friends provided a hen and eggs for setting. The pupils constructed a nest in the schoolroom. The boys and girls selected the eggs carefully according to the best information available to them. When the eggs hatched, the pupils cared for the chickens and kept a daily record of the activities employed in raising the chickens. These activities led to the selling of the chickens and eggs to the school cafeteria. From these experiences other activities centered about the buying and selling of produce were developed.

Miscellaneous Activities for Classroom Use (Food)

The following activities have much in common in that they all stem from studies of food and its uses:

1. List for one week fruits and vegetables eaten daily. Classify according to day, time of day, and amount eaten.
2. Make a study of family food habits to determine whether they measure up to accepted food standards.
3. Make a list of foods you have never eaten. Classify under the following headings: milk and dairy products; vegetables; fruits; breads and cereals; meats, fish, poultry, and eggs.
4. Choose one food which you wish to learn to like. Make a plan of procedure. When you have accomplished your purpose, write a story of your success.
5. Study food and diet characteristics of different sections of the United States. Indicate how diets in some regions have been lacking in certain necessary foods and what effect this lack has had on the health of the people and the progress of the regions.
6. Use insurance statistics to find out the prevalence of economic loss and suffering due to illness and physical defects which might be remedied.
7. Investigate the various health agencies—federal, state, and local—which are working to improve the nutritional status of people.
8. Plan a day's menu for (1) a child who needs to gain weight, (2) a child who should not gain much in weight.

9. Plan menus for two days which will follow the daily food pattern recommended by experts. Include a picnic lunch for one day; a home lunch for the other day.
10. Compare menus planned for two days with a record of food actually eaten. If this record does not equal the pattern in nutritional values, make suggestions for improvement.
11. Determine the part of the day's supply of calcium, Vitamin A, thiamin, and riboflavin secured in one quart of milk.
12. Investigate the sale of Vitamin D milk in your community. Find out which dairy sells it, methods of adding Vitamin D, and the cost of such a procedure.
13. Keep track of how much milk you drink and how much you use in your food. If the daily intake is less than twenty-four ounces, plan ways in which you may get more milk.
14. Look up the stories of the discovery of the different vitamins. Choose one of the stories and write a playlet. Present it before the class.
15. By means of pictures of animals, study the effects of lack of certain vitamins. Explain why these conditions are known as deficiency diseases.
16. Discuss the use of vitamin concentrates. Visit a drugstore and observe how many different vitamin concentrates are for sale. What kinds do you find? How do they differ?
17. Make a list of whole-grain cereals on sale at your store.
18. Make a poster advocating the use of whole-wheat or enriched bread.
19. Analyze food advertisements over the radio, in newspapers, and magazines (advertisements of cereals for example.) Discuss the truthfulness of statements, points which are overstressed or ignored to make the advertisement more effective, and groups to which advertisements are pointed in their appeal.
20. Find out what fruits are on sale in your store at various seasons of the year, including raw, canned, dried, and frozen foods. Plan a week's menu for breakfast using a different kind of fruit each day.
21. Compare the cost of fresh fruit juices and canned juices.
22. List the ways in which eggs may be served for breakfast; for dinner; for supper.
23. Plan a big breakfast (approximately 700 calories) containing eggs.
24. Compare the cost per pound of liver from beef, calf, pork, and sheep. Plan how you may use the money you can save by using beef, pork, or sheep livers instead of calf liver to increase the amount of raw fruit or vegetables in a day's menu.
25. Plan, plant, and care for a part of your family's garden. If practicable, have a school garden.
26. Start plant cuttings in (a) plain water, (b) in water to which plant food has been added. Note differences in growth.
27. Make a list of the green and yellow vegetables for sale in your community in the fall, winter, and spring months. Which may be eaten raw? How many do you eat raw?
28. Make a raw vegetable salad including in it a vegetable which you are

learning to like, or which you have never tasted in its raw form. List the vitamins and minerals which you secure from the salad.

29. Plan a box lunch for a man doing heavy work; for yourself; for a younger child. List the constituents of the day's food pattern which you have included in each lunch. Estimate the calories in each.
30. Make a study of the government's work on concentrated foods for the army.
31. Make a survey of the United States to learn (a) where various types of food are produced, (b) when and how foods are prepared for consumption and how they are transported to other sections of the country, (c) what foods need to be imported and from which countries, (d) what foods are produced in large enough quantities so that they may be exported, and where they are sent.
32. Plan a pattern for a day in which work, play, and rest are well-balanced. Check your time of eating and make a plan for eating at regular times.
33. Study stories of the progress of medicine, from superstitions regarding causes and cures of sickness to present-day emphasis on prevention of illness.

ACTIVITIES CENTERED ABOUT HOUSING PROBLEMS

Pupils Study Housing through Survey of School Plant

After the preliminary survey of local housing conditions by the social studies class, a group began a study of the history of housing from the earliest cave dwelling to the present time. Shelter was considered in relationship to two other primary necessities of life—food and clothing. In English classes, pupils wrote letters to various places requesting free materials on the subject of housing. The entire group also read about housing problems in books, pamphlets, magazines, and newspapers.

Housing standards, conditions, and trends were considered in a detailed community survey by the social studies class. These data were interpreted and graphed by the mathematics class. The group of boys and girls interested in this project made a thorough inspection of the school building for fire hazards. The electric wiring was found to be very bad, especially in the shop and on the stage. It was found that, in the shop, power saws and other power tools were plugged into ordinary sockets. There were too many drop lights on each circuit in the stage lighting. The fire marshal was called, and he and the class made a complete inspection of the building for fire hazards. A report was made to the board of education. Shortly thereafter an electrician was sent to correct these defects.

The class learned where the fuses were located, and, when a fuse burned out, some member of the class replaced it. The class decided that the lighting in the typing room and in the cafeteria was not what it should be. After studying lighting for some time, the class recommended that spe-

cial lights be installed in these rooms. The necessary equipment was purchased and installed.

Construction Methods and Materials Studied through Visits

The introduction of housing into the school program began in one school with a study of various building materials; such as, joists, sheathing boards, flooring, rafters, and laths of metal, wood, and gypsum. The reasons for using these materials were explained from mechanical, aesthetic, and utilitarian points of view.

The science class made a field trip to a two-family frame house that was in the early stages of construction. They saw the skeleton framework, two-by-four uprights, laths, attic ventilation, subflooring, electrical outlets, electrical conduits, rafters, chimney, and wall insulation. Observations were made of desirable arrangements of floor space, plumbing, wiring, steps, closet space, and basement.

A nearly completed brick house was the next type that was visited. The contractor showed and explained the building and answered the questions of the pupils. The boys and girls observed the workmen putting the finishing woodwork on the interior—baseboards, windows, door frames, and doors. The contractor answered questions and explained to the pupils the natural and artificial lighting provisions and discussed with them the sizes of the rooms, height of ceilings, arrangement of windows for cross ventilation, location of the kitchen, closet space, and the landscaping of the grounds. Since the house was built on a corner lot, the house was considered as to its appearance from more than one approach and also as to its architecture in comparison with the nearby houses.

After these field trips, studies were made of various materials used in the construction of buildings; various kinds of bricks and methods of manufacturing bricks were studied. The class also learned about the kinds of stone used in building. Cellars, foundations, walls, floors, and roofs were also studied. The pupils made posters of different types of houses—Colonial, New England, and Southern architecture; stucco, frame, brick, and stone construction; bungalows, duplexes, and apartments.

Activities for Home Improvement

The bare, scraped, and partially eroded school ground, the almost equally bare schoolroom, and the conditions of the homes of some of the pupils were the needs that lay beneath the efforts of one school to deal with school and home beautification—the creation of environments in which aesthetic needs and impulses could be satisfied and expressed.

At the beginning of the school year, a tenth-grade group became interested in the natural surroundings and natural resources of the locality. Their special interest was in trees. The uses, value, and importance of trees were studied. The pupils learned the characteristics of the most common trees in the community and made a list of the ones most suitable for shade trees. At this point they considered "What are the characteristics of good landscaping?" To determine these characteristics, the group engaged in the following activities:

1. Discussed attractive landscaping they had seen.
2. Visited new homes which the children had seen built on a bare hill; these homes now had excellent lawns started and were good examples of what can be done to improve the surroundings of a home.
3. Collected and studied pictures of beautiful landscaping of homes (taken from magazines, papers, and house-plan books.)
4. Studied materials on the subject which were obtained from the State College of Agriculture.

Having collected this information, the group prepared a list of essentials for good-looking surroundings for school or home; and a survey was made of the school ground and of the yards at home to determine what was needed to improve their appearance. From this survey, the pupils found that the school needed more shade trees, a grassy lawn, and more shrubbery and flowers. If these were to be added, the yard must be leveled, soil erosion must be checked, and humus, lime, and fertilizer must be added to the soil. At the homes more shade trees, more shrubbery, more flowers, and better lawns were needed. Unsightly objects were to be removed, soil erosion was to be checked, and fertility of the soil was to be increased.

The group discussed what they could do individually and as a group to improve the surroundings at school and at home. The following is a list of things done by members of the group:

At School

1. A rose garden eighteen by eight feet was made by removing about six inches of clay soil and filling in with woods dirt. Two dozen cuttings were brought from homes and set out early in November. The cuttings were covered with fruit jars for protection during the winter. The poor soil removed was put in the washes on the school yard.
2. All rubbish was removed.
3. The county agent was consulted and agricultural books and bulletins were read in determining the fertilizer and the kind and quantity of grass seed needed for the lawn. The entire job was done by a group of pupils.
4. Weeds and grass cut from an old field were spread over the entire hillside to hold the soil until the grass got a start.
5. With picks, shovels, and wheelbarrows, the boys helped to level the yard.
6. Twenty trees were selected by the group from the natural growth of timber near the school and were transplanted to the school yard.

At Home

1. Thirty pupils removed trash from their yards and burned it.
2. Two pupils helped cut and remove dead trees.
3. Eight helped with flower beds.
4. Two helped with painting their houses.
5. Three helped set out shrubbery.
6. One helped level the yard, prepare a seed bed, and seed the lawn.

One girl was assigned the responsibility for bringing together the information on home improvements. As various children made improvements at home, they reported to her. She kept a wall chart of progress for all the group to see. These activities provided a start toward equipping the children with an understanding of housing standards and some knowledge of ways in which healthful and attractive housing may be attained.

Home Improvements through Landscaping and Gardening

Each year the seventh-grade pupils of one school choose an activity which fits into their long-range improvement program. The flower garden was such an activity. Actual work in the garden plot was done daily during the forty-minute art period. But the garden entered other classes. English classes wrote poems and descriptive compositions on the garden theme. Letters, including orders for plants and materials, were also a part of the work in English classes.

Art classes concerned themselves with landscaping, flower arrangements, color combinations, layout, and design. A local florist came to the school to discuss arrangements and to demonstrate floral designs. His visit was followed by decorations of cafeteria tables, water-color and crayon drawings of flower arrangements, and a series of designs for the rock and flower gardens to obtain the most attractive color combinations in the sequence of flowering bulbs, shrubs, and rosebushes.

Science became not just a period devoted to "book study," but a wonderland of unlimited horizons for most of the pupils. The boys and girls learned about soil analysis as the samples were prepared for shipment to an institution of higher learning, and they studied both soil samples and reports when the latter were received.

Pupils developed a keener interest in and appreciation of the importance of weather by studying the time for planting various items in their gardens. Plant food and the preparation of beds took on a new meaning in relation to growing things and to supplying human needs. So did insects, especially the foes of the gardener, and the diseases to which shrubs and flowering plants are subject. Control methods and materials entered the discussions and were applied as found expedient.

The mathematicians had their share in the project. They measured the garden plot and its subdivisions. Scale drawings were plotted. The pupils marked out the fifteen squares and spotted twelve rosebushes in each with an eye to exactness, symmetry, and harmony. They figured the cubic volume of excavations, and the quantities and cost of plants, manure, and fertilizer required. In so doing they learned practical application of area, volume, perimeter, and percentage.

Physical education and health were emphasized in the gardening activities. The manual labor involved brought out the need for sound bodies, strength, muscular co-ordination, and teamwork, and the importance of proper eating and adequate sleep as a prerequisite for building sound bodies. The culmination of the activity was a flower show. The show was planned by the pupils and included exhibits from the school garden bolstered with choice selections from home gardens.

Miscellaneous Activities for Classroom Use

1. Plan with some of the candid cameramen and amateur photographers to make some photographs which illustrate various housing conditions. These pictures may be used in projection machines, on posters, and in other ways.
2. Make maps of the city or community indicating areas in which good housing and poor housing are found. Use symbols for buildings which do not meet accepted standards.
3. Study the effects of housing on crime; on disease and health; on education; on recreation.
4. Prepare a radio script on housing, giving pertinent facts concerning local housing conditions.
5. Interview various persons familiar with housing conditions. These would include contractors, architects, real-estate agents, Federal housing representatives, and insurance company representatives.
6. Dramatize some phase of the housing study, for example, "Buying a Home."
7. Make a class scrapbook on housing.
8. Make a collection of pictures of different types of houses as Colonial, Cape Cod, Victorian, Georgian.
9. Collect pictures depicting conditions resulting from slums, malnutrition, delinquency, and other community problems.
10. Study the relationship between poor housing and fires and accidents. Interpret the data gathered in this study.
11. Study the zoning laws and building codes of the community.
12. Investigate new developments in prefabricated homes and visit some in the community.
13. Make a study of various methods of financing a home.
14. Determine the amount of the taxes of each home-owner parent of pupils in the class and the amount of his assessment. (The sheriff and city and county tax collectors can furnish this information in a visit to the class or through interviews.)

15. Study provisions in the community for electricity, gas, water, and telephone service. Find what rates are charged.
16. Make a topographical drawing of home and other buildings on the property, showing water supply and sewage disposal; criticize.
17. Inventory homes for improvements which can be made; such as, provision of tool racks, rearrangement of coal and wood piles, and cleaning of attics and basements.
18. Study lighting in homes. Measure the window area and compare with the floor area.
19. Discuss the principles of proper ventilation (temperature, humidity, air movement); conduct experiments to show the relation of each of these factors to the others.
20. Plan and construct deflectors for windows to prevent drafts. Suggested materials are: glass, wood, cardboard, masonite, and beaverboard.
21. Make a study of some enemies of buildings; such as, termites, water, and rot.
22. Develop plans for arrangements of furniture, pictures, and other household articles.
23. Exhibit insulating materials, labeled according to use.
24. Diagram different types of faucets and demonstrate the repair of a leaky faucet.
25. Investigate what steps the Federal government is taking to improve housing.
26. Design a screen for separating a dining table from the rest of the kitchen.
27. Plan and construct an outdoor oven and grill.
28. Make a set of safety rules for handling electric devices.
29. Make individual plans for improving the interior of some room.

ACTIVITIES CENTERED ABOUT CLOTHING PROBLEMS

Clothing Problems Become Meaningful Experiences

The seventh grade at a rural twelve-grade school discussed methods of raising funds to improve their classroom. After several discussion periods, it was decided that a rummage sale would be a good means of raising such funds.

Letters were written to the people in the community and short talks were given in the classrooms urging the students to contribute articles for the sale. As the clothing was sent in, the class examined it and noted needs of repair and renovation. Committees were formed to take care of the work. As problems developed, it was found that reference materials were needed. Those which proved to be especially valuable were: *Johnny on the Spot, Better Living, Helps on the Care of Clothes at School,* and *Shoes Go to School.*

Some problems were discussed with the home economics teacher and her students. Motion pictures on the care and repair of certain materials were shown; magazine articles and pictures were studied for information. Demonstrations were given by class members to the group as a whole. Some of the activities in the repair and renovation of the clothes were:

1. A shoe-shine and repair box was constructed. Various methods of cleaning shoes were demonstrated. Simple repairs were made.
2. A sewing box was made. Demonstrations of repairing clothes were given by the pupils. These included sewing up rips, darning, patching, sewing on buttons, and making button holes. Then committee members repaired the clothing for the sale.
3. Demonstrations of caring for clothing were followed by actual experiences on the part of committee members. Some of these experiences were: washing and ironing cottons, linens, woolens, and rayons; washing and drying silk and nylon hose; proper ways of hanging clothes in the closet; storing clothing from one season to another.

The group became so interested in these problems that they decided to make booklets entitled "Care of My Clothing" for their own use.

At the end of several weeks, the clothes were repaired and arranged in order that the sale might be held. However, at that time a drive was being made for clothing for people in the war-stricken areas. The pupils voted unanimously to give their collection of clothes to these people, rather than continue plans for the rummage sale.

Miscellaneous Activities for Classroom Use

1. Mend rubber footwear with plastic rubber compound and inner tube patching kits.
2. Replace different types of fasteners missing from clothing.
3. Plan a short play to demonstrate appropriate clothes for school, work, and play. Pupils should write parts after making a study of clothing, fabrics, styles, and costs.
4. Test water for hardness and suitability for washing clothes.
5. Test different types of soap for strong or harmful ingredients.
6. Remove ink, gum, and stains from garments.
7. Visit shops to study fabrics, styles, and standards for selection of clothing.
8. Learn and practice simple shoe repair work.
9. Learn the best methods of darning socks.
10. Visit laundries and dry-cleaning plants to learn the latest methods.
11. Interview a tailor or a department store buyer to learn about fabrics.
12. Plan a budget to include necessary items of clothing for an individual for a year; for a family for a like period of time.
13. Plan interviews with clothing designers and art teachers on appropriate color combinations in clothing.
14. Plan and present style shows of both new and remodeled clothes (for both boys and girls).
15. Make studies of co-operatives in foreign countries in which groups of persons grow cotton and flax and raise sheep, make their own materials, design the clothing, and then make the clothes.
16. Collect pictures for a clothing scrapbook. One book might present the history of clothing during a certain period, while another could present present-day styles.

ACTIVITIES CENTERED ABOUT GENERAL COMMUNITY IMPROVEMENT

Community Improvement in Action

The high-school pupils of a twelve-grade school co-operated with the elementary children in starting a garden, in selecting suitable lunches, in visiting a dairy, and in tearing down an unsightly stable which was rebuilt into a workroom for the elementary children. A science class studied soil, hybrids, and methods of planting and grafting. One English class planned ideal homes; another studied family relations; and a third emphasized housing through study of historic homes in the state and the homes of the community. Sanitation was a unit of study for an eighth-grade group.

The seventh grade studied trees. Some of their activities included drawing plans of their houses and yards, taking field trips to the woods and the river, planting at least one tree at each home, and planting trees at school.

A mathematics class started a fruit shop, sold shares of stock, and worked out each day's profit or loss. Profits were spent for a first-aid kit for the same pupils' biology class. The high school as a whole ate more fruit, and the class gained valuable experiences in arithmetic, in budgeting, and in buying and selling. A biology class studied balanced diets and digestion. A class in consumer education took keen interest in prices, values, and qualities of clothing and food.

A civics class undertook to study the relationship between tenant and landlord and the responsibilities of each. They discovered that more than eighty percent of the people in the community were tenants. In discussing the problem, "How can the tenant improve his housing?" they called in an architect, an electrician, and a landscape gardener for information and advice.

A Visit to a Three-Way School

The following is a report of a visit to one of the "three-way schools" (schools working on problems of food, shelter, and clothing simultaneously) co-operating in the Sloan Experiment in Kentucky:

The junior high-school pupils were working on a unit for improving the interior of the home. They were making dressing tables, stools, and bookcases from boxes and scrap lumber. Several of these pupils had brought furniture from home to be repaired. About half a dozen of the girls and boys were in the workshop, using saws, hammers, scrapers, and sandpaper to repair the furniture. The pupils were using materials produced for the Sloan Experiment to learn how to saw angles, drive nails, and make joints.

The seventh-grade room showed that the pupils were studying chickens extensively.

Some of the high-school pupils were making dresses. Some were working on furniture and other articles for use in the home. An activity directly related to home improvement was in progress in the tenth-grade mathematics class. This group, after discussing the need for home improvements in the community, had estimated the costs of materials for the needed improvements. They had drawn plans to scale and were now carrying out the plans. Among the improvements being made were: a concrete porch at one home, a stone wall at another, upholstering a couch, papering a room, and refinishing a living-room floor. Plans were also being made for roofing and for painting homes in the community. The high-school English department was preparing a bulletin to be sent to parents describing the work being done in the school.

A two-room clubhouse on the school ground is a neat and attractive frame structure, which serves as a center for many social activities of the school and of the community. The living room is equipped with a carpet, comfortable chairs, a sofa, a radio, and bookcases containing books and trophies won by the school. The other room contains an electric stove, tables, chairs, a sink with running water, a refrigerator, cabinets, and chinaware and cooking utensils. The high-school boys built and equipped this clubhouse.

A cannery, located on the school grounds, is used extensively during the summer months by the school and by the people of the community.

Community Survey for Community Improvement

One civics class conducted a survey of the community, using the following topics as guideposts for their activities:

Number of householders in community
Occupations of persons in community
Number of rooms in houses
Lighting facilities in houses
Toilet facilities in houses

The class learned that the most needed improvements for the community in the opinion of the householders were sewage disposal, recreational facilities for the children and young people, and gas for heating and cooking. The school's FFA organization was already working on the problem of securing gas for the community.

The survey brought out the need for study of community improvement. "Improving Our Community's Homes" was read and discussed in the light

of needs revealed by the survey. The class wrote papers on community improvement, prepared a report to the parents on the findings of the survey, made a bibliography of available pamphlets on home and community improvement, and collected a library of helpful literature for use by the community. The group discussed many ways of presenting the information to the parents and climaxed their "promotion" program with an interesting original program on housing.

Visual-aids materials from the State University Extension Department were shown to the pupils and the PTA members. Houses and public buildings in the state were the subject of one series of slides; these were discussed from the point of view of architecture, improvements needed, landscaping, and tools used in construction and repair. This type of work led to plans for actual home improvements in the community. The survey was analyzed to determine specific needs, and specialists were then called in to give advice.

A mathematics class worked out specific directions for constructing sanitary privies and garbage containers. One home economics class studied a unit on the play-life of children in connection with the recreational needs revealed by the survey, and another class worked on refinishing furniture. The eighth grade took over an abandoned granary for a workroom, making their own benches and other equipment. They bought tools from the proceeds of a benefit basketball game. The farmers and workmen of the community made frequent use of the vocational agriculture shop to repair machinery and tools.

The agriculture and home economics pupils co-operated on a gardening project which included preserving and storing the harvest. A science group was particularly interested in experimental gardening—testing hybrid corn, for example—and comparing the effectiveness of various methods of insect control.

A health class for the older pupils of this school stressed dietary problems in connection with personal hygiene and growth of boys and girls. The health class also took responsibility for improving sanitary conditions in the school building. A biology class studied the sewage disposal problem and communicable diseases. In many other ways the basic needs—food, clothing, and shelter—were brought into the curriculum of the high school.

Senior Class Works with Community Council on Community Betterment

A senior social science class worked with a local community council to put into operation needed civic projects. One of the first things done by the

class was to conduct a community survey as a means of collecting needed data.

A community clean-up campaign was sponsored. Every householder cleaned under his house, collected and destroyed trash, planted flowers, trimmed shrubbery, and in other ways beautified his yard. One lady on each street kept in touch with the others and made reports. Prizes of crepe-myrtle bushes were given to three streets for excellent work. The members of the class took charge of all public property, while the elementary school pupils were responsible for the school grounds. As a part of this campaign the class also made posters, distributed handbills, and prepared radio skits for the local station.

Another group, working on health, made 300 bandages according to Red Cross specifications for a newly-equipped first-aid room in one of the communities of the school district. Nineteen babies were inoculated at a diphtheria clinic sponsored by the group. This particular clinic is now being sponsored by the district-wide community council.

A committee studying crime furnished a program on juvenile delinquency for a meeting of the PTA. The juvenile judge and the probation officer appeared in an original skit for the students.

A group studying recreation provided play programs for children in the fifth, sixth, and seventh grades. A committee from the group went three times a week to work with the elementary children. They directed basketball, volleyball, softball, balloon, and beanbag games, relays, and other usual field-day events. They also trained contestants who took part in the district-wide grammar school field-day. After-school recreation was provided one afternoon each week, and arrangements were made to carry over the program during the summer.

A class interested in "Youth and Its Problems" decided that one of the chief needs of youth in the district was work. They felt that, as never before, the students had opportunity to serve; consequently, they organized a Junior Employment Bureau to locate odd jobs at which pupils might work while going to school. Blanks were printed, and pupils between the ages of twelve and seventeen were enrolled. Blanks were issued to prospective employers who offered such work as baby tending, gardening, errand running, and cleaning. Here again the class worked with the active co-operation of an adult community council. The Bureau was organized with its own chairman and steering committee, and was, for the most part, entirely run by pupils.

III. Units of Work for the Improvement of Community Living

THE word unit, like all other vital words, has more than one connotation. Units of work are of many kinds and involve many variations in details of content, organization, time span, and activities. The unit was evolved to facilitate the selection and learning of significant processes and content, and to a certain extent the evolution of the unit method may be regarded as an attempt to throw off the shackles of traditional subject-centered teaching.

The unit is an organized body of information and experience designed to effect significant outcomes for the learner. The goal sought through such an organization of materials is the best possible growth and development of all pupils collectively and of each boy or girl individually. The significant outcomes will inevitably reveal themselves in changes in the pupils. New interests, new skills, new ways of reacting, and new ideas will prove the success of a good unit. Gifted pupils can grow in power through reaching out to new experiences which are challenging to them and which enable them to contribute to and enrich the experience of the total group. Retarded pupils can carry on activities which they find satisfying and which also fit into and enrich the total group experience. Each pupil can work on his own level, yet each can make a contribution to the worth of the common experience.

The unit is perhaps unique among the forms of organization of materials in that its whole conception rests upon the needs of the learner as distinct from the requirements of content. Any teacher will plan a better program of work with the pupils if the pupils and their needs are known well and if resources, interests, and materials are studied in advance.

The suggestions which follow should serve as a preliminary guide for the teacher in the inventory of pupil interests and available resources for a unit.

1. Pupil interests should be studied through:
   a. Observation of their activities in the classroom, on the playground, and in the community
   b. Observation of their choice of books and other available materials

c. Study of pupil conversations and comments
d. Records of contributions pupils bring from home.

2. The needs and interests of the group as a whole should be studied through:
   a. Records of units carried on in other grades
   b. Study of diagnostic tests given to the group
   c. Records and reports of past progress and achievement of the individuals and the group.
3. Community activities and resources should be studied through:
   a. Observation of community activities
   b. Participation in local civic organizations
   c. Discussions with parents and citizens
   d. Study of materials in local libraries
   e. Study of new buildings and industries in the community
   f. Study of local newspaper items
   g. Collections of locally prepared advertising materials.

When an interest has been selected which merits study over a period of time, the teacher is ready to work out an overview of possibilities and set up teaching objectives. The more thoroughly he has thought through the learning possibilities of the area and his own objectives, the better prepared he is to recognize and pick up leads from the pupils and to guide their thinking as they make plans and set up goals for their work. Plans should always be flexible and adjustable, so that good ideas can be added and any elements which do not fit the needs of the study as it progresses can be taken out. The teacher's overview should be a comprehensive one and may contain many more possibilities than appear in the actual study with the pupils. This overview is a reservoir upon which the teacher and children draw as they have need. Some points to be considered in planning and carrying out a unit of work are:

1. Consider the needs which are common to all of the pupils in the class. Will the unit under consideration make a significant contribution toward meeting these needs?
2. Survey the individual needs and interests of the boys and girls. Are there ways in which these needs and interests may be cared for in the proposed unit?
3. Make an overview of the subject matter which might enter into the study, the types of experiences which would be desirable, and the ways in which different subjects could be drawn into or integrated with this unit.
4. Plan possible methods of introducing the study of sustaining pupil interest.
5. Collect materials for the pupils to use and also some references for the teacher.
6. Plan the working period, keeping in mind the fact that only part of the working plan can be arranged in advance, since the pupils are to help plan it. The teacher should consider the following points as integral parts of unit planning:
   a. Carrying on discussions and other activities which help the teacher find out what pupils know about the subject, their attitude toward it, and in what they are interested.

b. Listing questions on which information is wanted; making charts showing what to do; planning excursions, construction, and other activities; finding and listing sources of information, tools, and materials; and arranging to have committees work on some of the questions or problems.
c. Gathering information and ideas for books and other sources and sharing through discussions, reports, and other means; and carrying out the plans for excursions and other projects.
d. Organizing the ideas gathered; checking the list of questions to see whether adequate answers have been found and to see that the pupils really understand the material they have been studying.
e. Summarizing the total learning. This could be done through giving a program for parents or another group of pupils, writing an original play, or making a record for the class yearbook.
f. Planning the evaluation of the total unit of work. Final evaluation would be concerned with two main points.
   (1) Growth and changes which have taken place in the pupils
   (2) Individual strengths, weaknesses, and problems which need further attention.

Like all other methods, the unit is susceptible to abuse and misuse, for this procudure can easily degenerate into a formula the following of which becomes the chief objective. In other words, it may lose its reality and become a formalistic ritual. However, if emphasis is placed upon the essential purpose rather than upon the means by which the purpose is to be achieved, the unit procedure will be a significant step in the right direction. Most of the disadvantages are probably not inherent in the procedure and can be avoided or overcome by skillful teachers who are alert to the possibilities of using this method where it promises the best results.

The units which are presented in this section are excellent examples of the work being done by secondary schools in developing plans for meeting the needs of youth in the area of community improvement. Several of these units are the products of schools which have not been identified with the Sloan program: therefore, it is evident that special materials and special supervisory programs are not essential to the development of units of this type.

The choice of units to be included in this bulletin was influenced by a desire to present material useful in many phases of economic improvement and to illustrate various methods of developing units.[1]

A. A Unit on Homemaking

USED BY AN EIGHTH-GRADE GROUP

During the acquaintance period each pupil gave name, grammar school attended, and one thing he or she enjoyed at school last year. The second day,

[1]Section V contains a bibliography of instructional materials which have been used in school programs for the improvement of community living.

vacation trips, summer reading (several book reports were given), and work done during the summer and for which pay was received were discussed.

When we found that each of the twelve seventh grades in the district was represented, the pupils suggested that they work in school groups and reports the major topics studied in the seventh grade. The teacher asked that interesting items about their schools and communities be listed.

After the reports were given, we found that the major topics studied by the group as a whole were: (1) westward expansion, (2) dramatics, (3) current events, (4) other countries.

While discussing our study for this year, the following questions were raised: Can we get reference material? Will we repeat our seventh-grade work? Will it be enjoyable? How can we get in the subjects the other eighth-grade sections take?

On Friday of the first school week, the group voted to study "Our Nation Today," and to divide the work into small topics, such as (1) news, (2) government, (3) occupations, (4) world affairs, (5) schools, (6) physical features, (7) customs and religion, (8) sports, (9) homes, (10) communication.

A class survey was made on Monday. Pupils organized groups and compiled information. It was decided that "Schools and Homes" would be the best topic to study first because many wanted to study schools and the class survey made us want to know about our homes. Posters and pictures from the Materials Bureau, charts, drawings, and straight line or bar graphs were used to illustrate the class survey information. Only a few members had made graphs. Class discussion brought out that a graph is a picture. Many words which describe pictures contain "graph," such as photograph, mimeograph, and autograph. Pupils found graphs (circle, broken-line, and bar) in arithmetic books and books on the library shelf. The following graphs were brought in by pupils and explained: "Distribution of the Family Income in the United States," "A Comparison of Prices in 1921 and 1936," "How Nations Would Balance (implements of warfare)." Various kinds of graphs were made by each pupil (use of arithmetic books).

To know more about where our schools and homes are located, it was decided that maps of each community in the district should be made. The maps should show streets, churches, schools, stores, railroads, mills, apartment houses, baseball parks, office buildings, the YMCA, the location of the homes of the section members, and playgrounds.

A group went to the Chamber of Commerce and got maps. A blueprint of the school district was secured from the office. One pupil brought a blueprint which showed division of an area into lots that were for sale. Pupils measured their lots and also found the size and cost of lots in the city. Pictures of flower gardens, city plans, home plans, and parks were brought in daily by the pupils during the first three weeks of the term.

Lack of already prepared information on the topic "School," in addition to interest aroused from the community maps, from a visit to a nearby house under construction, a visit to the auditorium being built, and from the class survey, resulted in a discussion which was pupil initiated. The group felt that we could not study "Schools and Homes" together because there was not enough time for two entirely different groups to make reports and there was not enough space in the room for both groups to carry on their work. It was unanimously decided that we would first study "Homes" and then topics that were related to home conveniences, agencies that help the home, and community life.

Development of the Unit

Pupils began discussing how we could find some place to make a model home. A larger classroom was available and all were anxious to move at once. I suggested that we visit the room and determine if moving would really be of any great help. The proposed new room was not attractive because the walls were scarred, lighting was not very good, and the ceiling was too high. However, the increase in size outweighed all defects. Measuring for the possible size of a model home we could build, space left for tables and chairs, cabinets, workbench, and science shelf created so much interest that the group remained long after dismissal hour. Moving day was lots of fun! Arrangements of tables to get best lighting for reading and for cabinets and shelves for convenience and for saving space were of great importance to the entire group.

The question, "What will we study while we build our home during work period?" was asked. Group discussion determined that we should plan as if we were building a real home. Many questions were asked about homes and when grouped the following topics were suggested: (1) location of a home, (2) cleanliness, (3) health, (4) safety, (5) recreation, (6) personal habits, (7) home decoration, (8) home plans, (9) budgeting and family income.

The mechanical drawing teacher had drawn the plans for the home of the grandmother of one pupil, who suggested that we ask this teacher to visit us and tell us about house plans. Blueprints of the house were brought and explained. The location of house on the lot, type of house suitable for certain kinds of lots, materials used, and various workmen employed were discussed during the visit.

Pupils immediately began talking about topics related to building a home. It was suggested that we could read about home planning as we made plans for building our room. The following topics were listed for reports: the climate, size of the family, size of the lot and its location, cost of house and lot, materials to use, work of the architect, contractor, and

carpenter. Visits to the auditorium under construction gave much information as to materials and work of the architect. The contractor became interested and answered questions of groups at various times.

When we actually began building the home, there was so much cleaning to be done after a work period that we found it necessary to organize groups which would rotate. Cleanliness and orderliness were thought of and talked about so much for a few days that we soon found ourselves organized into groups on "How to Clean Our Houses Properly," "Washing Dishes Properly," "Dusting," "Disposal of Garbage," "Avoidance and Elimination of Pests such as Rats, Flies, Roaches, and Bugs," "Cleaning Agents," "Value of Cleanliness and Orderliness (time saved, beauty enjoyed)."

Science books were used to answer many questions about cleaning agents, removal of stains, hard and soft water, alkalis and acids. A pamphlet, *Stain Removal,* from the Department of Agriculture, Washington, D.C., was ordered by the group. Stains were removed and tests were made for alkalis and acids. Pupils brought vinegar, salt, soda, lime, and ammonia. Litmus paper and hydrochloric acid also were brought to school. A collection of cleansing agents was made. We found this useful; as the building work progressed, it was often necessary to remove paint, ink, and iodine stains.

When the group was reporting on pests in the house, the question, "Do rats really carry germs?" was asked. Someone thought information about the pests might be obtained from the city or county health department. A group agreed to investigate over the weekend. Pamphlets and barium carbonate were brought in. Pupils' lunches had been eaten by rats in the lockers. The barium carbonate was used very successfully. A poster was made for the hall bulletin board promising the clearance of rats from lockers for five cents. For several days the committee was kept busy.

The visit to the health departments afforded many pamphlets on diseases; pure water supply; and care of teeth, eyes, and feet. The group which worked on the questions relating to disease in the survey suggested that we could take up the study of health next. As pupils thought this had been studied by everyone it was decided that we make a list of necessary things for a healthful home. Each pupil brought in a list and then a class check list was made. Pupils checked their own homes using the class list. Several reported that they had gotten rid of rats and roaches and had better garbage disposal cans. Three girls voluntarily said they were washing dishes in a better way and five said they dusted and swept properly. A number of parents told me both boys and girls had shown more interest in home surroundings and caring for the home.

Taking care of clothes, teeth, skin, hair, and nails was of special con-

cern to all of the girls and all but five of the boys. Later two of these boys became interested and an improved appearance was noticed in the group.

Personal health habits were listed. It was found that three pupils ate no breakfast, ten ate very irregularly, many did not eat a green vegetable at all during the day, and one girl ate three bars of candy for lunch each day. A number of books on the library table gave information on the value of regular eating, balanced diet, proper rest and recreation for boys and girls, and height and weight charts. Pupils were weighed and heights obtained. Each was keenly interesed to find out if he were normal according to the standard table. A graph was made showing that the class average was normal but that three were much overweight, two were slightly underweight, and three were far below the standard weight. After reading and reporting on the classes of foods and caloric value, the group planned a diet for the underweights and overweights. A balanced diet was displayed in a cabinet (pupils brought the food), and many posters and charts illustrating vitamins, parts of plants used for foods, and diets were drawn. A trip was made to a guinea pig farm to secure a pair of guinea pigs in order to test the effects of proper and improper diet. There were almost four hundred guinea pigs at the farm; the pupils were told that the animals were shipped to hospitals and laboratories for experiments. The pupils enjoyed caring for their pets, Jack and Jill, so much so that they did not want to treat either badly. It was suggested that we wait for little guinea pigs to come and use them for our experiment.

An article in *Life Magazine* telling about the nicotine cure for pellagra created unusual interest. A letter was written to a nearby university asking for more information. A few days after discussing the causes of pellagra, the class had a visitor who discussed with the pupils the need for more foods in a diet than the three M's—meat, molasses, and meal.

The work of Trudean, Jenner, Pasteur, and Reed was found in *Health Hero* pamphlets. Pupils enjoyed these reports which led into a study of vaccinations, toxins, and antitoxins.

A pupil brought an article from the daily paper that explained how corn can be raised in chemicals. Corn was planted and the experiment proved very successful. The science teacher helped obtain the necessary chemicals. This group's interest caused all of us to begin talking about fall flowers, fruits, and vegetables. A glass garden was made and bulbs were planted. Posters explaining condensation and evaporation were placed near the glass garden. Each morning pupils were eager to note the amount of moisture collected and growth of the plants. A study of air, water, and plant growth in science books was enjoyed. Topics included were air pressure (barometer, mercury tube, and aneroid barometer were secured from

the science laboratory), doing work with the air, (pumping water, vacuum cleaner, systems of air tubes in modern stores, hair-drying machine, automobile tire filler, paint sprays, and air brakes), composition of air (Oxygen was made.), oxidation, the structure of water, (Electrolysis of water was performed in the science laboratory by the science teacher.), minerals in water (calcium and magnesium, hard and soft water), distilled water, securing a pure water supply (small filtration plant using a large bottle, gravel, coarse sand), and charcoal was made. A trip to a bleachery filtration plant was most informative. Substances plants must have for growth, structure, habits, and uses of plants were studied (microscopic slides were obtained from the science department, and the group also made slides of leaves, roots, seed, potato, yeast, and mushroom). Pupils greatly enjoyed the microscope. Harmful and useful bacteria, plants with no chlorophyll, parasites, and fungi were included in the reports.

Each pupil made a folder to be used for keeping a written record of the year's work. Plans of the house we built, amount and cost of materials used, articles about trips we took, stories, poems, book reports, letters, science experiments, and summaries of major topics studied in outline, question, and story form are found in the folder, which is kept in our filing cabinet. The necessity for keeping records accurately and neatly, filing records properly, and making a contents sheet was emphasized. Individual scrapbooks with cardboard backs covered with wallpaper samples, a large yearbook, and a poster collection kept the entire picture of the year's work from day to day.

News reports and a number of serious accidents in several of the communities caused a group to become interested in home and community hazards. This led into a study of "Safety and First Aid in the Home." Graphs, posters, demonstrations by Boy Scouts in the group and also by a director of the Boy Scout program, letters asking for safety pamphlets and charts, a safety play written by a group and given at Open House Night, articles written for folders were part of the study. The group made a first-aid cabinet for the classroom containing twenty items which pupils brought from home.

Framing, weatherboarding, and sealing the model home, and hanging a door (found in the junk pile) and window required six weeks, along with making posters, scrapbooks, recipe books, whatnots, towels, and block prints for Christmas cards. (The last four items were made for Christmas presents.)

As work progressed on the home, plans were also being made for furnishing it. Scarcely a day passed that someone did not mention something we could make for a room or some way we would use it when completed. A pupil read that the units in a home are work (kitchen), rest (bedroom), and

recreation (living room, library, and dining room). We decided to make one room a living room-library.

Selection of wallpaper that would be suitable for each of the rooms was a real problem. Finally a plain, light-cream-striped pattern was chosen for the living room because it would make the room look higher and lighter. Paper and paint stores were visited. A group went to a house that was papered and reported that we could not possibly hang our paper without some of the necessary tools. One pupil knew a paper hanger who came and gave us a demonstration and lent us a paper trimmer, brushes, and collapsible table for a week. Canvas was bought from the school textile department for three cents a yard. Pupils found the amount of canvas and paper required, and the amount of baseboard and moulding. We had some white paint given us but we did not want either the outside or interior painted white; therefore, we got a tube of Italian Sienna from the paint store and mixed our paint, making it a pretty cream. Questions were raised and answered about kinds of paints and varnishes. The values of paint and its composition were given in reports. An exhibit consisting of resins, leads, coloring matter, and gums used in making paint and of the products obtained was sent us by a varnish corporation. A group made a map of the world and showed the sources of the various items by using strings leading to the bottles.

A coat rack, two bulletin boards, and a shelf for clay work were made for the classroom. The electric jig saw brought by one of the boys was in constant use during the work period as furniture for the living room-library was being made. Bookstands, book ends, attractive whatnots, a bench, an electric lamp made of spools, lamp and window shades of flowered wallpaper, curtains, magazine rack, a wastebasket, an upholstered barrel chair, and footstool were made. A bowl and ornaments for the whatnots were made of clay and painted. Cushions were made for the bench and chairs, which were found in the junk pile. These were repaired and painted. All this made the room a comfortable place which the pupils thoroughly enjoyed. Twenty-two books and three games were brought from the pupils' homes. Before and after school and during lunch hour on rainy days, the room was always overflowing with visitors from other sections. A section librarian and her helpers catalogued the books contributed by the pupils, teacher, and friends. The books were circulated as in the school library. Five pupils who had scarcely ever read before, showed real interest and read a number of books which their classmates brought and recommended. Oral book reports were given and written ones for folders were prepared. Pupils also brought magazines from home. A large magazine rack was found useful for both pamphlets and magazines. One boy who delivered the morning paper brought a copy for the room almost every morning. The teacher

brought the afternoon paper and the Sunday *New York Times* and *Life Magazine*. The social science-English department furnished money for subscriptions to *Scholastic, American Observer,* and *Nature* magazines, which were checked out for overnight use.

Types of pictures were discussed for a living room-library. Several were mounted and framed suitably. Hanging pictures and arranging flowers properly afforded two of the most enjoyable reports and demonstrations. The groups working on these topics secured help from the district Home Beautification Director. Trips were made by groups to furniture stores, home-furnishing departments, and houses which had been decorated under the supervision of this director.

Posters featuring reading and vocabulary-building were made while we were studying the living room-library. Poster topics were: "Is Your Reading Diet Well Balanced?" "Have You Read?" "What Are Our National and World Problems?" "A New Word to Know Will Make Your Vocabulary Grow," and "Science Today."

The games in our room and talking about reading for pleasure and for information led us to mention recreation quite often. A graph was made showing the amount spent for various forms of recreation in America. A play, emphasizing the need for recreational facilities and benefits derived from play, was written by a group and given on Open House Night when parents and friends were invited to visit our room, see the work done, and hear reports and explanation about the group's integrated program. The pupils arranged seating plans, made the programs, mailed invitations to parents and other guests, and made bookmarks of brass for souvenirs.

While answering the questions raised about recreation, we found that our city library and park and tree commission receive money from taxes. Pupils became interested in agencies that help our homes and that protect us. Civics books and many pamphlets and pictures from the Materials Bureau and library were used. A trip was made to the fire and police stations, the City Hall, and the Court House. Articles for folders were written. Taxation was studied in arithmetic. The local rate of taxation was obtained and also the taxable value of property in the district. The city clerk took us to the Council Room and talked on taxation. We were introduced to the Mayor. Questions about voting, state, county, and national officials, and the expense of running our government were raised. Family, government, and personal budgets were studied.

Pupils became interested in the bank operated by the tenth-grade section. The entire group visited the classroom and obtained information on early means of trade, early money, banking, and men of wealth. Four of the section members opened accounts with the bank.

After studying forms used in the bank—deposit slips, checks, bank books, and monthly balance sheets, each pupil "opened" an account with the bank and wrote checks for the lumber, wallpaper, nails, paint, and canvas we had bought, and for taxes and insurance on our house. Business letters relative to these bank accounts were written. Bank forms were secured from banks in town. One pupil's mother, who worked for an insurance company, sent a sample fire insurance policy for one hundred dollars on our house made out to the section. A study of life and fire insurance was found interesting. Each pupils' family had some life insurance and many of the pupils had policies themselves. After reading pamphlets and using arithmetic books, we listed a number of questions relative to kinds of insurance, meanings of certain terms, and necessity of careful investigation in order to know the reliability of companies. Pupils interviewed those who collected their weekly or monthly insurance fees. A friend of the teacher who sells insurance visited the classroom one afternoon. She was so interested in the class insurance policy that the pupils began asking her many questions. A number of insurance forms, magazines, and yearly statements were sent to the class after the visit.

The group decided to study the dining room-kitchen next and furnish their room. Topics listed for study included table manners, table settings, electrical equipment for the kitchen, food buying for a family, table service, menus for a week, chinaware (kinds and decoration, and what it is made of), kitchen utensils (materials used in making them and care of them—rust, tarnish, acids).

Pupils began bringing discarded electrical appliances. We soon found that we must study electricity in order to know how to care for our appliances. The following outline to guide in gathering information about electrical equipment was made: principle on which electricity works, cost of operation, probable purchase price, simple repairs, proper care, time and labor saved. The following were studied by groups and reported on: refrigerator, iron, fan, toaster, vacuum cleaner, washing machine, and stove. After reading, studying diagrams, and talking with the science teacher, each of seven articles brought in was repaired and used in our kitchen. An iron was dismantled in order to show the heating unit, new coils were put in hot plates and toaster, and a bell was connected to a dry cell placed on top of the house. Pupils read that a buzzer should be used for the back door. One was made and also attached to a dry cell. Posters on reading the meter, finding the cost of electricity used, how an electric bell works, parts of an electric iron, and parallel and series connections were made.

An educational representative from a power company showed us a motion picture on correct and incorrect lighting, and also a miniature living

room properly lighted. She placed two ICS lamps in our house for a week. Pupils noticed the difference between these lights and ours. The science teacher invited the section to the laboratory to see a picture on making an electric lamp.

The following were made for the kitchen-dining room: an electric stove, (a two-eye hot plate mounted on a box so that the switches were on the box as if it were a real stove), a dining table, towel racks, a cabinet, trays of wood and copper, candle sticks of sheet lead, a wall container for pot holders, curtains (of cloth from the textile department, tied and dyed), towels, and a luncheon set, with napkins. A cabinet in the hall of the school building was arranged, displaying linen made for our home, chinaware, and proper arrangement of flowers.

The group organized a family consisting of father, mother, an eighteen-year-old daughter, a daughter fourteen years old, and twins (a boy and a girl), twelve years old. Various incomes including gifts and unexpected expenditures (hospital bills) were used in apportioning amounts spent for food, clothing, recreation, education, health, housing and furnishings, charity, insurance, and savings by our family. Current prices were obtained by groups that visited grocery, clothing, and furniture stores. Two girls made an accurate record of their families' incomes and expenditures, and we made a comparison with the amount that the group allowed for each item when the same income was used. Graphs on the budget made earlier in the year were used. Pupils were interested in knowing that the amounts they estimated for the various items were reasonably the same (except for housing) as those suggested in various books we used.

While talking about housing in our district, the pupils raised questions about FHA, housing problems in large cities (slum districts), and our local proposed housing program. Much reading was done. The chairman of the local Housing Administration gave us a number of pamphlets and many charts and maps sent from Washington, D.C.

A trip was made to a community in the district that was selling houses to the employees. The plan for payment, the purchase price, a comparison of rent usually paid and the monthly payments towards purchase price, the probable cost of upkeep, and the advantages of owning a home were included in a talk made to the class by one of the representatives of the financing company when we went to the model home that the company had established in the community. A pupil whose parents were interested in buying one of the houses made all the plans for the trip and asked for the talk to be given to the class. A blueprint of the landscaping and location of the grammar school, churches, and possible places of employment was shown.

A map showing location of government housing projects was made.

Posters illustrating the condition of a house before and after a loan from the FHA were made. A special bulletin board on housing was kept during the study. Local papers were constantly used, since many editorials and news items about the proposed housing project appeared daily. The Sunday *New York Times* gave us splendid facts about housing in larger areas. The following questions were answered:

1. How long has the FHA been operating?
2. Does the FHA help build schoolhouses?
3. In what city has the most money been spent for the clearance of slums?
4. Is the FHA helping more people now than when it began?
5. Where are the largest slum districts in America?
6. Does the FHA decrease unemployment?
7. When building a house with help from the FHA, do certain specifications have to be met?
8. What rate of interest do you pay on an FHA loan?
9. What per cent of our families in America live in good houses?
10. Does housing affect health? How?
11. If a person should die before his FHA loan has been paid, what would be done?

The pupils voted to make our final test a group summary of the year's work including classroom and school news items, original illustrations of articles made during the year and experiments in science, and a part of the year's work found most enjoyable. A picnic attended by the pupils and a majority of the parents closed a busy and a profitable year's work.

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B. A MATHEMATICS UNIT ON HOUSING

USED IN A JUNIOR HIGH-SCHOOL

The following unit was an outgrowth of a junior high-school mathematics class. Such a study is usually focused upon material bearing on a single subject field; however, if the real needs of youth are to be met, practically every subject in the curriculum will make contributions to the solution of the problem under consideration.

The pupils may begin the housing unit by measuring and drawing to scale objects in the classroom and around the school; then, the floor plan of the schoolroom may be drawn; and, finally, the entire building and site. These drawings will serve as a basis for a thorough study of the school, of the home, or of both.

If the home becomes the center of interest, each child may draw floor plans of his own home. The yard, garden, chicken lot, should be included, showing the location of outbuildings, shrubbery, and trees. A discussion of the various plans will reveal good and bad points in home planning. The next step is to draw to scale an ideal home, eliminating the deficiencies which have been discovered. Each pupil will work on his own problem, but there will be numerous instances where group work is possible and desirable. Drawing plans for an ideal home will require reading of magazines, pamphlets, and booklets; architects and construction men will be interviewed; home economics teachers and vocational agriculture teachers will be valuable sources of information; and homes may be visited. Studies may be made of suitable types of building materials, methods of financing, char-

acteristics of desirable sites, advantages and disadvantages of owning a home as compared with renting, and satisfactory kinds of heating, lighting, plumbing, and water supply. Workers must be employed; thus a study of labor-management problems is profitable. Zoning laws must be examined, and methods of transporting materials to the scene open a vast field of study. These are only a few of the possible problems which may be considered.

After the house plans are completed, the next step is a study of the actual construction of the home. The basement must be dug, the foundation constructed, and the building completed. Interior decorating then becomes a problem. Some furniture must be purchased, some remodeled; all must be properly arranged. The yard must be landscaped, sowed in grass, and beautified with appropriate shrubs. Outbuildings must be constructed and the garden planned. All plots may be surveyed.

The preceding activities will necessitate numerous uses of mathematical skills. However, these uses will be closely related to the problems of providing adequate food, clothing, and shelter, and the mathematical skills will not be segregated from other desirable learnings. Financing the home and comparing home ownership with renting provide the basis for studying promissory notes, interest, insurance, taxes, discount, commission, and percentage. Opportunities for the study of measurement—volume, area, angles, perimeter—are evident. Installment buying, graphs, meter reading, budgeting, invoices, and surveying are an outgrowth of such activities as purchasing furniture, comparison of costs, installation of meters, determining the amount which should be invested in a home, and surveying of the yard.

Besides mathematics, other subjects—science, art, social studies, industrial art, and English—are included. Simple electricity, color, water pressure, and ventilation are examples in science. A study of life in the home involves a study of community problems affecting life in the home. Desirable recreational activities may be included. Opportunities for application of English permeates all of the work. The degree to which these fields are explored is entirely dependent upon the interest and ability of the pupils and teacher or teachers. A suggested outline of this unit follows:

Objectives

1. **To develop mathematical skills considered desirable for junior high-school pupils, these skills to be closely connected with problems vital to the pupils**
2. **To correlate mathematics with other courses of the junior high school**
3. **To develop a desire for and an understanding of desirable housing conditions in the community**
4. **To improve living in the community by developing skills necessary for adequate care and improvement of housing**

Activities

1. Introducing the unit

Have each pupil make a scale drawing of (1) furniture in the schoolroom, (2) the schoolroom, (3) the school building and site, and (4) his own home, including site and outbuildings.

The first three drawings may be done in groups. For example, one group can make a transit, survey the school ground, and draw it to scale; another group can be responsible for the basement of the school building; another for the first floor; another for the second. Each group may be subdivided with each subgroup responsible for certain measurements and drawings. Preferably, at least two groups should draw each plan to provide a check on the work. The last drawing (the pupil's home) should be the individual responsibility of each pupil although different ones may co-operate. Instructions for the construction of a simple transit may be found in numerous mathematics textbooks. Practice in the use of the transit should precede the actual surveying of the site. A study of angles, degrees, characteristics of figures, and areas of certain figures can be made. Obviously, fractions and the fundamental processes will need to be mastered before final plans can be drawn. The agriculture teacher can assist the group in surveying the site; a local surveyor may be asked to demonstrate the use of a commercial transit and to check the results of the group.

2. Establishing a background of information

a. Making detailed studies

(a.) Modern home—study plans and draw to scale

(b.) Home under construction—interview contractor

(c.) Zoning commission—study zoning laws and how they affect certain sections

(d.) Plumbing and heating companies—study furnaces

(e.) Paint store—study paints, color combinations, and methods of protecting property

(f.) Water company—study water supply, purification, distribution

(g.) Furniture store—study things to consider in purchasing furniture, arrangement of furniture, care of furniture

(h.) Architect—study blueprints, collect pictures of homes

(i.) Electrician—study lighting, refrigeration, heating, and cooking by electricity and compare with other fuels

(j.) Real-estate agent—study characteristics which determine the sale of property (location, construction, age)

(k.) Home economics teacher—study points to be considered in building the home for the best arrangement of the furniture (Interior decorator or housewife may be interviewed also.); most of the subject-matter teachers will be interviewed from time to time as the need arises

(l.) Landscape architect—study proper landscaping (agriculture teacher may help here)

This list of visits and interviews is not intended to be complete; other visits may be added as the need arises; some may not apply to all classes and should be ignored. Each visit should have a definite purpose and should be well planned by the teacher and pupils. All pupils should know what they are looking for and the questions they want answered. After the visit, the information must be organized and used to complete the unit. Obviously, the order of visits will vary. Some may come very early in the unit; some, later; some may need to be repeated. For example, the home economics teacher (or the interior decorator) will be needed early in the unit to make suggestions concerning the placement of doors and windows, size of rooms, and wardrobe space as these decisions affect the placement of furniture in the completed home. Later in the unit, the same person can help in the selection of furniture, in designing and making draperies or curtains, and in covering chairs. Still later, the home economics teacher's experience in working with the home can be utilized by the class in checking community improvements and in securing community co-operation. The landscape architect can help in selecting the site and planning for appropriate shrubbery; later he can assist in the actual selection and planting of these shrubs. In short, each visit is made and each interview is held when it is needed and can contribute to the solution of the problems being attacked.

b. Making detailed studies

(a.) Types of homes and construction for different countries and different sections of the United States.

Several different teachers can co-operate here. The social studies teacher can assume the major load by directing a study of the history of homes and customs in various countries. Foreign language teachers can contribute by directing a study of housing in those sections of the world where each language was or is spoken. The art teacher can discuss various designs in building (Roman, Greek, American). English teachers can provide materials and assist in the study of literature related to housing. The pupils may work in committees with these various teachers, consolidate their material, and present it to the entire class (written, oral, or both).

(b.) Kinds of building materials—sources, methods of transportation, and kinds desirable in different situations.

The science teacher can be a valuable source of aid in this study. With his assistance, various materials and minerals essential in building (stone, brick, glass, steel, cement) may be studied. The industrial arts teacher and agriculture teacher can direct a study of woods used in building houses and in manufacturing furniture. The social science teacher will be able to direct a study of the country or section from which each material comes as well as the transportation system necessary for bringing the materials to the site. A contractor will be valuable in discussing the advantages and disadvantages of each type of building material.

(c.) Various types of financing—bank loans, building-and-loan association loans, cash. Compare cost of owning a home with renting. Make graphs of all these items.

The commerce teacher is a logical source of information for problems concerning finance. This teacher can be equally helpful in sections "d," "f," and "j," below. A banker, the manager of a building-and-loan association, a local tax collector, an insurance man, or a lawyer will also be helpful in the study of these topics.

(d.) Amount that can be paid each month from different salaries and family sizes. Make complete family budgets for various salary levels and family sizes. Graph each. (See "c" above.)

(e.) Labor-management relations.

The social science teacher can help in planning this study. A labor leader and an employer may be interviewed. A representative of a labor-relations board could be very helpful.

(f) Deeds, taxes, insurance of all kinds, contracts. (See "c" above.)

(g.) Supply of pure water for local needs—cistern, well, spring—ways of transporting to the home, electric and hand pumps, sewage disposal.

The science teacher can supply materials and assistance here. Take samples of water to be tested, purify contaminated water, study drainage from outbuildings and the flow of underground water, study sewage disposal systems of your own or a nearby town. If you live in a rural area, you may survey local toilet facilities and study desirable sewage disposal for rural areas (septic tanks and sanitary toilets). Study electric and hand pumps for supplying running water to the home. A plumber and electrician can be called upon for help.

(h.) Recreational possibilities in homes.

The physical education teacher and the city recreation director will be valuable in this study. They can help pupils list desirable recreational facilities for the home as well as teach various games. A family that has developed a desirable program can be helpful. Consider the need for a recreation room in the home.

(i.) Interior decorating—paper, plaster, painting, and selection and arrangement of furniture.

The home economics teacher, art teacher, and an interior decorator can assist here. Study proper decoration of each room of the home, care of woodwork, floor coverings. Study the design of wallpaper suitable for each room with the assistance of the art teacher.

(j.) Methods of financing the purchasing of home furnishings, installment buying. (See "c" above.)

(k.) Types of outbuildings needed, location (Consider water supply.), and construction.

Agriculture and science teachers can help here. This study should be closely connected with the study of pure water in "g" above, since the location of some outbuildings may affect the supply.

3. Using information. (The purpose of these activities is to be put into practice the information collected.)
   a. Draw plans of an ideal home including site and outbuildings suitable to local needs (each child draws own plans). Write specifications. The English teacher can assist the group in writing the specifications.
   b. Compare the cost of building with different materials. This means a complete follow-through of the actual construction from the basement to the roof. Graph the result.

      Each pupil may choose the type of building materials (wood, brick, stone) he wishes to use, in relation to a certain income which he has chosen. This income level may approximate that of his own family. Then each pupil, under the teacher's guidance and with the help of anyone he may need, will proceed to build his own imaginary home. Each step should be followed in detail just as if he were the supervisor "on the job." For example, he should figure the cost of excavation and of cement, desirable width and depth of foundation, kinds of joists, distance apart for the studding, bracing, building flues, angle of roof, wiring, plumbing, and labor. In each case the pupil assumes that he must make the decision as to what will be done. He finances the building, insures it, determines the tax base, and figures the tax. He landscapes the yard and locates outbuildings. Finally he purchases furniture and makes final preparation for occupancy.
   c. Construct simple items — steps, book shelves, tables, picture frames. Each pupil can make articles to take home.
   d. Renovate furniture. Girls can cover chairs; boys refinish tables or chairs.
   e. Make a transit. Survey site; locate shrubbery, garden, outbuildings, recreation space. This will be carried out in connection with "2" above.
   f. Choose a yard for landscaping—draw plans and complete job if possible. This also will be carried out in connection with "2" above. Use the art and agriculture teachers.
   g. Write and produce a play (or program) about the home. Include original songs; draw posters for advertising. The English teacher can assist in the preparation of the program; the dramatics coach in presentation; the art and industrial art teachers in setting the stage and advertising; and the commerce teacher in typing copies of the program.
4. Evaluating results
   a. Compare final plans of ideal home with each pupil's home in the community.
   b. Discuss and summarize what has been done.
   c. Have brief talks and panel discussions on results and possibilities.
   d. Evaluate study skills with tests (each teacher should test in own field).
   e. Check improvements made or planned in community.
   f. Write a booklet summarizing needed improvements in the community and suggested procedures for making these improvements. Distribute the booklet in the community.

      The major purpose of this evaluation is to determine the status of each pupil's home as compared with the ideal home which he could have

at or near the salary level of his family; this is followed with a campaign for community improvement. Panel discussions and talks, to which parents are invited or in which they participate, will promote improvements and at the same time enable each pupil to evaluate the progress being made. Booklets containing information may be typed by commerce pupils and distributed to each family. To determine study skills, regular tests may be used. The important point is that the pupil should do the evaluation in terms of the objectives established.

Subject-matter Content

1. Mathematics
   a. Fundamental processes—addition, subtraction, multiplication, and division when needed throughout the unit
   b. Fractions—common and decimal when needed throughout the unit
   c. Characteristics, dimensions, drawing of various kinds of figures throughout the unit.
   d. Scale drawing—floor plans
   e. Degrees, angles, circles, the hypotenuse rule
   f. Area—triangles, rectangles, circles, curved surfaces
   g. Volume—rectangular prisms, cylinders, and others
   h. Similarity and congruency of figures
   i. Graphs—line, bar, circle, pictorial
   j. Discount
   k. Invoices and statements
   l. Travel costs and time tables
   m. Taxation
   n. Insurance
   o. Promissory notes, loans, interest, installment buying
   p. Budgeting—complete family budget with section for housing in detail
   q. Profit, loss, overhead
   r. Percentage—figuring interest, commission, insurance
   s. Surveying, simple trigonometry—planning the size of the yard, garden, and other lots
2. Science
   a. Properties of water—in connection with supplying pure water for home
   b. Water table—running water into home
   c. Gravity and pump systems—running water
   d. Diseases from water—supplying pure water for home
   e. Plumbing—best materials to insure pure water supply
   f. Sewage disposal
   g. Hard and soft water
   h. Soap and water
   i. Climate and weather—thermometers, barometers, thermostats, winds, air pressures as they affect life at home
   j. Color—effect on vision, desirable combinations
   k. Heat—for home cooking
   l. Ventilation—air conditioning, location of windows

m. Electricity—sources, units, wiring, electric bills, heating, telephone, door bell, radio, lighting

3. Social Science
   a. Labor-management relations—wages, welfare, clauses, hours
   b. Community agencies—health department, community chest, church, school, commercial concerns
   c. Transportation facilities—roads, railroads, automobiles, trucks, airplanes, ships
   d. City government—school laws, officers, elections, taxes, law enforcement
   e. Recreational activities—school, public, (motion-picture theaters, parks), home (reading, radio, recreation rooms)
   f. Home life in America and other countries—comparison of life in other communities with those in the local community
4. English
   a. Letter writing—for materials, thanking persons for help
   b. Informational reading
   c. Writing and presenting play or program
   d. Writing booklets
   e. Writing related themes in English class
5. Art
   a. Drawings of homes
   b. Pictures for homes
   c. Posters, advertising program
6. Industrial Art
   a. Making furniture
   b. Making transit
   c. Making stage construction

Suggested Materials for a Study of Housing

Books

1. Durham, Clarence W., and Thalberg, Milton D. *Planning Your Home for Better Living.* New York: McGraw-Hill Book Company. 1945.
2. Fields, Wooster Bard. *House Planning.* New York: McGraw-Hill Book Company. 1940.
3. Johnston, Harris. *Building or Buying a House.* New York: McGraw-Hill Book Company. 1944.
4. Matthews, Mary Lockwood. *The House and Its Care.* Boston: Little, Brown, and Company. 1939.
5. Robinson, Ethel Fay, and Robinson, Thomas P. *Houses in America.* New York: The Viking Press. 1937.
6. Whitman, Roger B. *First Aid for the Ailing House.* New York: McGraw-Hill Book Company. 1938.

Free and inexpensive materials

1. *Beautifying the Farmstead.* Farmers' Bulletin No. 1087. Washington, D.C.: Superintendent of Documents.
2. Browne, F. L. *Painting Your House.* Washington, D.C.: The American Forestry Association.

3. *Convenient Kitchens.* Farmers' Bulletin No. 1513. Washington, D.C.: Superintendent of Documents.
4. *Farm Building Insulation.* Chicago 2: The Insulation Board Institute, 111 West Washington Street.
5. *Farmstead Water Supply.* Farmers' Bulletin No. 1448. Washington, D.C.: Superintendent of Documents.
6. *The Heart of the Home.* Washington 6, D.C.: Structural Clay Products Institute, 1756 K Street, N.W.
7. *How To Have the Home You Want.* Atlanta, Georgia: United States Gypsum Company, 1726 Chandler Building.
8. *Light Is What You Make It.* New York 17: National Better Sight Bureau, 420 Lexington Avenue.
9. *Pumps and Plumbing for the Farmstead.* Knoxville, Tennessee: Agricultural Engineering Development Division of the Tennessee Valley Authority.
10. *The Sanitary Privy.* Supplement No. 108 to the Public Health Reports. Washington, D.C.: Superintendent of Documents.
11. *Selection of Lumber for Farm and Home Building.* Farmers' Bulletin No. 1756. Washington, D.C.: Superintendent of Documents.
12. *Sewage and Sewerage of Farm Homes.* Farmers' Bulletin No. 1227. Washington, D.C.: Superintendent of Documents.
13. Westover, H. L., and Enlow, C. R. *Planting and Care of Lawns.* Bulletin No. 1677. Washington, D.C.: Department of Agriculture.
14. *Wiring Your Farm and Home.* Washington, D.C.: Rural Electrification Administration.
15. Woodin, J. C. *Home Mechanics for Girls.* Wichita, Kansas: McCormick-Mathers Company. 1941.
16. Burnson, Charles M. *Housing in Man's Advance.**
17. Harper, Jewell E. *Co-operation with the Rangers.*
18. Harper, Jewell E.; Raborn, S. Fred; and Wilkinson, Jack. *Better Rural Yards.*
19. Henderson, Leon N., and others. *Improving Our Community's Homes.*
20. Holder, George L. *Let's Build.* Grades 7-9.
21. Keene, Anna K. *Let's Figure for Improved Living.*
22. Mosier, Charles I. *Evaluating Rural Housing.*
23. Olson, Clara M. *If Our House Could Talk.*
24. Owens, Irma Lois. *Housing in English.* Grades 7-9.
25. Raborn, E. G. *A New Approach to Mathematics.* Grades 7-9.
26. Reed, Kathryn Eastwood. *Let's Work Magic.* Grades 7-9.
27. Rodgers, Irma Owens. *Barter for Comfort.*
28. Shultz, Arlo M. *Improving Our Homes Ourselves.*
29. Shultz, Arlo M. *Building Improvements for Our Homes.*
30. Shultz, Arlo M. *Making Better Homes.*
31. Shultz, Arlo M. *Planning and Building Houses.*
32. Shultz, Arlo M. *Practical Information for the Home Builder.*

*Items 16 to 35 were prepared by the Sloan Experiment in Applied Economics at the College of Education, University of Florida, Gainesville. The materials may be secured from this address.

33. Shultz, Arlo M. *Some Construction Activities*
34. Stephens, Dorothy C. ***Pineville High Meets the Challenge.***
35. Stephens, Dorothy C. ***Roddy the Rat.***

V. ***In Addition to the Above Materials, the Following Sources are Recommended.***

1. The bibliography in Part V of this bulletin
2. The bibliographies in many of the materials listed above
3. Commercial textbooks in the various subject-matter areas for junior high schools
4. Standard reference books

C. A MATHEMATICS UNIT ON CLOTHING

USED IN A JUNIOR HIGH-SCHOOL GROUP

The preceding unit on housing may be followed with a similar unit on clothing centered in the junior high-school mathematics class but including all other subjects taught in the junior high school. The housing unit will furnish a background of knowledge essential for the clothing unit. The clothing unit will provide excellent reviews of the topics studied in housing, will carry some topics further, and will add new topics suitable for junior high-school pupils. However, these units may be developed separately, if the teacher wishes.

The family budget made in the housing unit may serve as the beginning point for the study of clothing. The part of the family budget allocated to clothing may be completed in detail for different salary levels. A limited survey of the community will indicate existing conditions and problems. Information must be gathered to aid in the solution of these problems. Visits may be made to shoe stores, clothing stores, dry cleaning establishments, laundries; detailed studies may be made of fabrics in relation to their different uses, wearability, cost; some clothes may be made, some mended, others cleaned. Storage facilities may be studied. Such facilities should include movable racks and chests as well as closet space for the ideal home planned in the housing unit. Culmination of the work may be a program designed to reveal to the people of the community desirable practices in the selection and care of clothing.

Subject matter is not neglected. The pupils learn mathematics through budgeting, percentage, graphs, invoices and statements, and installment buying. Science includes a study of soaps, acids, alkalies, and light reflection and absorption. Other subjects involved in the unit are social studies, art, industrial art, and English. The emphasis to be placed upon each of these

must be determined by the situation existing at the time. Opportunities for the study of these different subjects may be seen in the suggested outline which follows.

Objectives

1. To develop mathematical skills considered desirable for junior high-school pupils, these skills to be closely connected with problems vital to the pupils
2. To correlate mathematics with other courses of the junior high school
3. To supplement work begun in the housing unit for junior high-school mathematics
4. To acquire information necessary for intelligent clothing practices
5. To develop skill and good habits in the selection and care of clothing

Activities

1. Introducing the unit
   a. Make a family budget for the different income levels. Graph each.
      This can be a continuation of the family budget in the housing unit. The section on clothing will now be made out in detail. The budget is only one of the topics from which a study of clothing may begin, however. For example, the study of colors in the housing unit could be broadened to a study of color combinations in clothing; thus, the clothing unit could develop from this point.
   b. Survey the community to determine types of clothing worn.
      The social science, commerce, and English teachers can help the pupils prepare a simple survey form. The form may be administered by the pupils. The survey may be very detailed, but probably should attempt to determine only the outstanding practices in the community, to reduce the danger of antagonizing persons who feel that the school is prying into matters which do not concern it. A good program of public relations would overcome this attitude; surveys, properly conducted, can aid materially in improving school and community relations.
2. Establishing a background of information
   a. Visits or interviews
      (a.) Clothing store and factory if possible
      (b.) Shoe store and factory if possible
      (c.) Dry cleaner—compare processes with home methods of dry cleaning
      (d.) Soap factory or manufacturer
      (e.) Home with adequate laundry and storage space
      (f.) Health center—study effects of clothing upon health

This list of visits and interviews is not intended to be complete; other visits may be added as the need arises; some may not apply to all classes and should be ignored. Each visit should have a definite purpose and should be well planned by the teacher and pupils. All pupils should know what they are looking for and the questions they want answered. After the visit, the information must be organized and used to complete the unit. Obviously, the order of visits will vary. Some may come very early in the unit; some, late; some may need to be repeated.

b. Making detailed studies

(a.) Fabrics in relation to fitness for different uses, wearability, cost.
Community customs can be considered with the aid of the social science teacher; the type of clothing to be worn in different seasons, at different events, for safety, for play, for work, for school, and for wearing qualities can be studied with the help of the home economics teacher; and the art teacher can direct a study of various color combinations for pleasing harmonies and contrasts and in relation to individual coloring.

(b.) History of clothing materials, clothing appropriate for different countries and for sections of the United States, processes from raw materials to finished garments (leather, rubber, synthetic rubber, wool, cotton, rayon).

A procedure similar to that followed in the study of the history of housing may be followed. If both units are being studied simultaneously, the history of both may be surveyed at the same time. Some valuable comparisons may be made. The social studies, science, English, and foreign language teachers can all be of assistance.

(c.) Proper care and repair of clothing—storage (Include study of clothing moth.), laundry equipment (compare with commercial laundry), laundering, dyeing, brushing, sponging, removing stains (study chemicals and physical action), dry cleaning (home and commercial).
The science teacher can help in the study of insects that destroy clothing, in examining laundry equipment, and in dyeing and removing stains; the home economics teacher is invaluable in most of the work of this section.

(d.) Selection of clothing for health, utility, personality—judging quality and style, guides in buying, developing good judgment in personal dress.
Commerce and home economics teachers can be valuable here.

(e.) Clothes closets and laundry-room arrangements in plans developed for the ideal home.
Industrial arts and agriculture teachers, as well as the home economics teacher, should be helpful.

(f.) Designing clothing
The art and home economics teachers will be helpful.

3. Using Information

a. Construct articles in school

(a.) Shoe bags and racks
(b.) Shoe-shine kits and cabinets
(c.) Sewing kit and cabinet
(d.) Movable garment racks and hangers
(e.) Stain removal supply cabinet
(f.) Cedar chest or other forms of moth-proof storage space
(g.) Novelty belts and buckles

(h.) Simple clothing—sandals, bedroom slippers, aprons (boys make carpenter's type), dresses, gloves. Study patterns.

These articles may be taken home.

b. Design clothing.

This should follow closely a study of designing.

c. Launder clothing. Use hard and soft water. Make soap, bleaches, starches. Compare home and commercial laundry costs (electric bill, labor, depreciation of washer and iron). Clean and shine shoes.

Science, commerce, and home economics teachers co-operate here.

d. Hold a rummage sale. Collect old clothes, renovate, and sell or distribute where they are needed. Consider the cost, expense, selling price, and profit or loss.

The commerce teacher can help.

e. Plan a year-round individual wardrobe (each pupil) considering family needs and money available. This is a culminating activity which should use the information gathered and will perhaps require the services of most of the subject-matter teachers.

f. Write and give a program (include an exhibit—style show, charts, articles constructed).

The English, dramatics, commercial art, home economics, and industrial arts teachers will be needed here. This also is a culminating activity designed to diffuse the information.

4. Evaluating results

a. Compare an ideal year-round individual wardrobe with your own clothing. Check any improvements that have been made or could be.

b. Discuss and summarize what has been done—short talks, panel discussions.

c. Evaluate study skills—tests.

d. Write a booklet summarizing the study and making suggestions pertinent to community needs. Distribute to the community.

Subject-matter Content

1. Mathematics

a. The four fundamental processes—will appear throughout the unit

b. Fractions—common and decimal—throughout the unit

c. Percentage—budgeting, discount, profit, selling price

d. Budgeting—family budget with seetion on clothing in detail

e. Graphs—line, bar, circle, pictorial—art class

f. Invoices and statements—on visit to stores

g. Discount, profit, loss, margin, selling price—rummage sale

h. Interest—installment buying of clothing

i. Measurement, lines, angles, kinds of figures, area and volume of figures—construction activities

j. Similarity—designing clothes

2. Science

a. Effect of clothing on health—keeping clothing clean, having proper fit in clothes

b. Hard and soft waters—softeners, best kind for laundering
c. Acids, alkalies, and neutrals—effect upon clothing
d. Soap—home and commercial soap, toilet soap, laundry soap, medical soap, soap powders, how soap cleans
e. Heat—climate and weather, influence upon clothing worn, what and why certain materials are warm or cool, body energy
f. Light and its reflection by different fabrics, color, dyes

3. Social Science
   a. History of people who produce various raw materials—cotton farmer, sheep rancher, cattleman
   b. Local customs—standards of dress on different occasions for boys and girls
   c. Transportation of raw materials to factory and to you—place of each middleman, means of transportation
   d. Community agencies whose activities are related to clothing
   e. Family problems of providing adequate clothing for each member
   f. Life in a manufacturing community—work opportunities, community problems, employer-employee relationships, contribution of the community's products to other regions
4. English
   a. Letter writing—for material to arrange for visits
   b. Reading
   c. Writing themes, presenting programs, making booklets
   d. Making talks; holding panel discussions and interviews
5. Art
   a. Posters
   b. Clothing designs
   c. Illustrations for booklets
   d. Pictorial graphs
6. Industrial art
   a. Construction of articles to be taken home

The two preceding units are offered as suggestions to junior high-school teachers; it is doubtful if either unit could or should be followed completely. They do not attempt to exhaust the possibilities, but they do include activities which have been used successfully. Not all suggestions are equally applicable to both boys and girls. There is, however, sufficient scope to meet individual interests and needs, and both groups will participate in most of the activities with equal enthusiasm. Careful planning will enable each pupil to work on something profitable and interesting to him; yet his work will contribute to that of the total group.

Each of these units can be used effectively in either a departmental or a nondepartmental organization. If one person teaches all subjects, the difficulties are somewhat reduced. However, many valuable experiences will be

lost unless the class co-operates closely with all who can help. Close contact should be maintained with teachers of English, science, music, art, agriculture, home economics, industrial arts, commerce, and social studies.

In a departmentalized junior high school, co-operative planning and participation must involve all teachers. A unit similar to those given here will provide the general plan; each teacher must develop the sections most closely associated with the subject she teaches. In short, the unit is a class rather than a teacher unit; thus all teachers who can help the class must participate. If a proper working relationship is established, the results can be almost as satisfactory as in the nondepartmental organization. In fact, many of the handicaps of departmentalization can be partially eliminated. Herein lies one of the greatest values to be derived from such a unit. All school subjects are focused upon the same general problems; each subject becomes a part of the whole and is seen in its proper perspective. The three R's become supplementary tools essential for the solution of problems related to the needs of pupils and realized by them. Mathematics is *used* rather than memorized and forgotten; English becomes a means of securing and conveying ideas about the work—reading is meaningful because it provides information sought by the pupils, while themes, discussions, talks, plays, and interviews become real because they are about real things; and social studies are related to the society in which each person lives and contribute to the improvement of that society. Obviously, success in such a program will demand a flexible administrative organization and a group of teachers interested in teaching youth.

These two units may serve as the core for an entire year's work and may be followed the next year by a unit on food. The food unit logically follows the plan (made in the housing unit) of the garden space for the ideal home.

Available Materials

The following materials were prepared by the Sloan Experiment in Applied Economics at the University of Vermont, Burlington, Vermont. The materials may be secured from this address

1. Marvin, Pearl T. *A Stitch in Time.* 1942.
2. Morrill, Maurice. *Suggestions for Presenting Clothing Information to Vermont Children.* 1944.
3. Tillotson, Nora R. *Tales from the Salvage Can.* 1943.
4. Montague, Audrey. *From Old to New.* 1943.
5. Hart, Mary N. *Shoes Go to School.* 1942.
6. Morrill, Maurice, and Webster, Frederick. *Repairing Footwear.* 1946.
7. Baldwin, Myrtle C. *Johnny on the Spot.* 1945.

V. Other Sources

In addition to the above materials, the following sources are recommended:

1. The bibliography in Part V of this bulletin
2. Commercial textbooks in the various subject-matter areas for junior high

schools
3. Standard reference books

D. AN ENGLISH UNIT ON HOUSING

USED BY A TENTH-GRADE GROUP

The educational program in our schools today can be improved if we will build our curriculums around experiences to meet the needs, interests, and abilities of all the pupils. In order to do this we must talk in class about our experiences and determine what our needs are. These needs cannot be determined through reading a book, writing a story, or giving an oral report; but rather through informal discussions where students and teachers think, analyze, discuss, and really define their needs. Of course, there are many, many needs, but certainly some are more important than others. Through evaluation and elimination of the less important, we determine what most vitally concerns us at the time. Such discussion, however, must be preplanned by the teacher, who, because of her maturity and experience, guides the thinking of the group and helps organize it. When units are planned co-operatively, interest is higher and goals are common to and accepted by all.

A house or a home of some kind is a must for everyone. Students in the tenth grade have had happy or unhappy experiences in their homes. Some students are proud of their homes; others, ashamed. These people are interested in the home and its functions and how they can make the most of what they have.

In order to determine what is best in housing, we need some standard by which to judge. Ruskin, in his *Seven Lamps of Architecture,* sets up ideals but very modern, practical, and sensible standards for buildings. Not all students will be able to read this; not all students will need to read it; but some will enjoy reading all or parts of it and reporting to the class. The class will be interested, and, through their questions and discussions, they will set up ideals and build a philosophy for a better, richer life.

Other students, working in committees, will learn co-operation through reading chapters from other books and discussing freely the materials gleaned. Reports will be given to the class by the committees only when the material seems of interest and importance to the class. We never give reports just for the sake of giving reports. Time should be provided for activities in which students express themselves creatively. People learn to do by doing; the students should build, paint, decorate, or do whatever else needs to be done.

Literature is a medium through which our experiences are enriched by vicarious experiences. Some of the stories listed in the bibliography are al-

ready known. They are talked about informally in class; students describe what they consider the best illustrations of home life in the stories. Some students will read or re-read the stories because of the high interest and because they are easy to read. Some will find other good stories illustrative of home life. It is wise to have students read selected chapters from a number of books. In this way they develop interest in stories by a number of authors, and ask if they may read all of the stories which they have sampled. Biographies and letters provide excellent descriptions of the home life of great men.

Many current magazines have materials, both artistic and factual, relating to the home. Students should know about these. It is important that students know how to find the magazine articles that they need. They should learn how to use *Reader's Guide* and have practical experience in using it. Out of this unit could grow many other units of whatever length is appropriate—a unit on health in the community, a unit on recreational needs in the community, or perhaps a unit on decentralization. The objectives for this unit are as follows:

1. *To determine what kind of home will best meet the needs in our community:*

Materials

Our community
Our natural resources
Our way of life

Activities

Discussions (Guide Questions)
Why study housing?
What are housing problems?
Recall the history of housing.
What kinds of houses do we have?
What is the difference between a house and a home?
Why are people interested in antiques?
Why is genuine simplicity better than expensive imitation?
Do our natural resources have any effect upon our kind of living?

Differentiation and Enrichment

List our natural resources and determine to what extent they control our way of living.

Evaluation

Students are now thinking more intelligently about the homes in their community and are planning for the future.
Students are aware of their natural resources and of the need for conserving them.

2. *To set up some standards for houses:*

Materials

Seven Lamps of Architecture, Ruskin
a. Lamp of Sacrifice

b. Lamp of Truth
c. Lamp of Power
d. Lamp of Beauty
e. Lamp of Life
f. Lamp of Memory
g. Lamp of Obedience

Activities

A committee will study and present Ruskin's *Seven Lamps of Architecture.* This will set the stage for the unit. It forms the basis for critical analysis and evaluation of other materials.

Differentiation and Enrichment

Large illustrations of the *Seven Lamps of Architecture,* showing the ideals as well as the practical application, for classroom decorations.

Evaulation

Students have an appreciation for Ruskin. They know how modern and how simple are the principles which he sets forth.

3. *To learn co-operation in working and to be generous in discussion:*

Materials

The House. Tessie Agan

Activities

Another committee will report on *The House,* emphasizing the chapters dealing with "The Modern Family and Its Housing Needs" and "The House and Its Environment."

Discussions (Topics)

Some basic considerations in choosing and arranging home furniture
Standards of quality for home furnishings
Fundamental equipment

The class takes notes on reports. Some students will want to read the book for themselves.

Additional Materials

Building America, Vol. I and IV, Society for Curriculum Study
Plan Your Own Home, Sooy and Woodbridge
Household Equipment, Peet and Sater
Art in Home and Dress, Trilling and Williams, pp. 115-400
Decorating the Home, Lewis

Other Activities

Another committee will review *Housing the Masses,* by Carol Aronovici, pointing out how it applies in our own situation.

Discussions (topics)

What are the objectives of housing?

To what extent do we consider the land? the people? the economic levels—trades and occupations? the economic organization? the political complexion? the standards of living?

Using an opaque projector, show the pictures of homes where American people live, (the best and worst homes, our resources for housing).

A committee will study the books mentioned in the above section, build a philosophy of homemaking, and decorate at least one room of a house (pasteboard box)

Differentiation and Enrichment

A committee will summarize this material, draw conclusions with the help of the class, and present a report in the form of a book, which will be donated to the library. This book should be illustrated and colorful.

Evaluation

All students have a keener interest in housing. They understand that intelligent people live simply and honestly within their income. They have had practice in reading for information, organizing that information, applying it to a given situation, and presenting it orally and in writing.

4. *To express the ideals of the "Seven Lamps of Architecture" in the designing of a modern American home in a real modern American community:*

Materials

Large table on which to build the model home
Home Town, Sherwood Anderson
Modern Housing, Catherine Bauer, pp. 141 ff, 157 ff, and 237 ff.
The City Is the People, Henry S. Churchill
New Architecture and City Planning, Zucker
A Million Homes a Year, Dorothy Rosenman
More House for Your Money, Gordon and Ducas
Reader's Guide—to find magazine articles on community planning

Activities

Keep in mind the philosophy of the *Seven Lamps of Architecture*. Point out the trends as you plan and build your model.
Consider the need for decentralization; provide accordingly.
Analyze the relationship of the home to the neighborhood, the neighborhood to the greater community, and the greater community to the world about.
Are prefabricated houses built for one generation only? How do they measure up to Ruskin's standard?
Bring in the industrial arts and art teachers for an evaluation of the model with the class participating.

Differentiation and Enrichment

Write letters to interested persons explaining the work and inviting them to come and see it.
Make a bibliography of magazine articles.
Take a photograph of the model community and submit it with a story to the local newspaper.

Evaluation

Students see that the need for community planning is as important as the need for home planning.
Students see their homes in relation to the community in which they are a part.
Students have become acquainted with some new magazines and their values.

5. *To appreciate the home through literature and to express appreciation of the home through writing stories and poems or painting pictures of homes:*

Materials

For reading: novels, poems, essays, stories

For comparison: movies

Activities

Read to see living standards as they have existed at various times.

In panel discussion show the change in living standards with stories from pioneer days up to the present time.

Outline the history of homes, and show how needs change and modify homes.

Differentiation and Enrichment

Read the biographies or autobiographies of some of our great men and women to learn of their home life and its influence upon them.

Evaluation

Students realize that people have to *learn* to live in various localities.

New authors and their characters have been made known.

Students have enjoyed and profited by extensive reading.

Readings on Home Life

1. Alcott, Louisa May. *An Old Fashioned Girl.* Chicago: The John C. Winston Company. 1928.
2. Alcott, Louisa May. *Little Men.* Chicago: The John C. Winston Company. 1928.
3. Alcott, Louisa May. *Little Women.* Chicago: The John C. Winston Company. 1926.
4. Alcott, Louisa May. *Rose in Bloom.* Boston: Little, Brown, and Company. 1874.
5. Aldrich, Bess S. *A Lantern in Her Hand.* New York: D. Appleton-Century Company. 1933.
6. Aldrich, Bess S. *Song of Years.* New York: D. Appleton-Century Company. 1939.
7. Aldrich, Bess S. *A White Bird Flying.* New York: D. Appleton-Century Company. 1932.
8. Aldrich, Thomas Bailey. *The Story of a Bad Boy.* Chicago: The John C. Winston Company. 1927.
9. *Autobiography of Andrew Carnegie.* Boston: Houghton Mifflin Company. 1920.
10. Benet, Laura. *Young Edgar Allen Poe.* New York: Dodd, Mead, and Company. 1938.
11. Best, Allena C. *Homespun.* New York: Lothrop, Lee, and Shepard Company. 1937.
12. Boyd, James. *Marching On.* New York: Charles Scribner's Sons. 1927.
13. Chase, Mary Ellen. *Mary Peters.* New York: The Macmillan Company. 1934.
14. Cornell, Katherine. *I Wanted To Be an Actress.* New York: Random House. 1939.
15. Day, Clarence. *Life With Father.* New York: A. A. Knopf. 1935.
16. Dickens, Charles. *David Copperfield.* Boston: Ginn and Company. 1910.
17. Ferber, Edna. *Show Boat.* Garden City, New York: Doubleday, Doran, and Company, Inc. 1926.

18. Ferber, Edna. *So Big.* Garden City, New York: Doubleday, Doran, and Company, Inc. 1916.
19. Fisher, Dorothy Canfield. *The Bent Twig.* New York: Grosset and Dunlap. 1915.
20. Hagedorn, Mermann. *The Boy's Life of Theodore Roosevelt.* New York: Harper and Brothers. 1918.
21. Irving, Washington. *Rip Van Winkle.* New York: The Macmillan Company. 1925.
22. Keller, Helen. *The Story of My Life.* New York: Grosset and Dunlap. 1905.
23. Lewis, Sinclair. *Main Street.* New York. Grosset and Dunlap. 1920.
24. Meadowcroft, William Henry. *The Boy's Life of Edison.* New York: Harper and Brothers. 1921.
25. Montgomery, Lucy Maud. *Anne of Green Gables.* Boston: L. C. Page and Company. 1908.
26. Nicolay, Helen. *The Boy's Life of Abraham Lincoln.* New York: D. Appleton-Century Company. 1906.
27. Nicolay, Helen. *The Boy's Life of Alexander Hamilton.* New York: D. Appleton-Century Company. 1905.
28. Nicolay, Helen. *The Boy's Life of George Washington.* New York: D. Appleton-Century Company. 1905.
29. Nicolay, Helen. *The Boy's Life of Ulysses S. Grant.* New York: D. Appleton-Century Company. 1909.
30. Rice, Alice Hegan. *Mrs. Wiggs of the Cabbage Patch.* New York: D. Appleton-Century Company. 1930.
31. Saroyan, William. *The Human Comedy.* New York: Harcourt, Brace, and Company. 1943.
32. Saroyan, William. *My Name is Aram.* New York: Harcourt, Brace, and Company. 1941.
33. Tarkington, Booth. *Alice Adams.* New York: Grosset and Dunlap. 1921.
34. Tarkington, Booth. *Seventeen.* New York: Harper and Brothers. 1916.
35. Waln, Nora. *The House of Exile.* Boston: Little, Brown, and Company. 1933.
36. Wiggins, Kate Douglas. *The Birds' Christmas Carol.* Boston: Houghton Mifflin Company. 1916.
37. Wiggins, Kate Douglas. *Rebecca of Sunnybrook Farm.* Boston: Houghton Mifflin Company. 1925.

Home Life in Verse

1. De La Mare, Walter. "The Listeners"
2. Dunn, Bessie Cary. "Home Is Where the Heart Is"
3. Eliot, George. "Brother and Sister"
4. Foss, Sam Walter. "The House by the Side of the Road"
5. Foster, Stephen. "Old Folks at Home"
6. Guest, Edgar. "The Home Town"
7. Kilmer, Joyce. "A House with Nobody in It"
8. Lomax, John. "A Home on the Range"
9. Lowell, Amy. "Lilacs"
10. Morley, Christopher. "Song for a Little House"
11. Payne, John Howard. "Home Sweet Home"

12. Riley, James Whitcomb. "Home Folks"
13. Whittier, John Greenleaf. "Snowbound"
14. Wordsworth, William. "Michael"

E. A UNIT ON SELECTING A BUILDING LOT USED IN A SENIOR HIGH SCHOOL*

Introduction

Every family hopes to own a home some day. A home one participates in planning is usually more satisfactory than a home planned by someone else. The first step in owning such a home is the purchase of a lot. Most people have had no previous experience in purchasing lots, and, as a consequence, they may choose poorly before they have all of the facts or become involved in legal difficulties because they do not understand the basic law involved.

More specifically, this unit is introduced in the latter half of the twelfth year or in the thirteenth year to interest young people in planning now for adult life, and in considering the possibility of a lot selection and purchase concomitant with their first vocational employment or prior to their actual entrance into college. A piece of property gives one something to tie to, a sense of ownership; and it is often a good investment. But beyond that, it provides a young person with something to work for; it whets the homemaking instinct.

Relationship to General Aims

This is part of a source unit on homemaking—understanding and planning for family life as a basic social unit. This work is to be scattered throughout the grades culminating in the upper grades in practical experiences for both sexes in all of the practical aspects of homemaking with particular emphasis on an understanding of the family as a basic social unit; on home planning and the evaluation of existing residences; on financial management; on child psychology and child care; social graces, dietetics, *etc.*; and finally on the techniques of lot purchasing. The scope topic is the "Conservation of Human Resources," and the general aims involved include the development of ability (1) to co-operate, (2) to accept responsibility, (3) to be socially effective, (4) to have the scientific attitude, (5) to be creative, (6) to keep and develop self-respect, (7) to extend useful knowledge, and (8) to participate in democratic practices and processes.

Every year the vocational carpentry class of our school builds a house

*This unit was developed in the Stockton Unified School District, Stockton, California.

as a practical project. We propose that the classes experiencing this unit be allowed to evaluate several lots and then propose the best one to the school board for purchase.

This unit is designed to bring the later adolescent into contact with a real, but relatively simple adult-level problem—one that he himself may be near to; one that gives him the adult experience and advice he needs; one that allows him full opportunity to explore a limited field, to express his ideas therein, and, thereby to gain a feeling of adequacy and competency.

Generalizations

1. All people need a real home.
2. One good way to get a home is to invest some money in a lot.
3. Buying a lot makes the end seem nearer, the project more real, and saving easier because the first step has been taken.
4. In making a life investment of this nature, we should be sure we purchase wisely.
5. While the problem is complicated, we have many good sources for reference and many people in our local community who can give us practical advice and guidance.
6. A home owner who has purchased wisely is a satisfied homemaker and, therefore, more likely to be contented and happy.

Suggested Student Activities

1. Showing a motion picture depicting the steps in the purchase of a lot by a family—how they evaluated the lot and the neighborhood—and who waited upon them and did what.
2. Have each class member select a lot he would like to own. Have him give reasons.
3. Read a story depicting the experiences of a family that has made an unfortunate lot purchase.
4. Consult women's magazines for articles dealing with the factors involved in purchasing a lot.
5. Ask a real estate man to visit the class and discuss the factors involved in the purchasing of a residential lot.
6. If a family represented in your class has recently purchased a home site, ask that class member to confer with his parents and report the kinds of consideration given.
7. Give a preliminary test regarding lot purchasing so as to reveal areas where the greatest need for study are.
8. Take excursions into the community and look at a number of lots. Let each pupil list the good and poor aspects of the several lots.

Surveys

1. Visit the Regional Planning Board, or better, ask its architect to visit the class and point out where the town's residential areas are, and at what points business and industry are crowding in.

2. Color in a map of the metropolitan area showing the present occupied, residential land and the potential or unsettled residential land. Mark all subdivisions where lots are still available.
3. Make a collection of deed restrictions and note points that are common to all and peculiar to only one or a few.
4. Make a study of lot sizes available to home owners in your community.

Organizing to Study the Problem

By now enough preliminary information should be at hand to divide the class into working committees. These may well consist of the following:

1. *Committee on Location and Characteristics*
   a. *Location*
      Part of city
      Street and number
      Character and stability of neighborhood
      Neatness and upkeep
   b. *Characteristics*
      Size
      Character of soil
      Contour (levelness)
      Permanent views
      Direction of prevailing breeze
      Direction of storm winds
      City or regional zoning regulations
2. *Committee on Public Services*
   Street paving
   Sidewalks
   Curb and gutter
   Parkway trees—Kind. Size.
   Water service—Where? Pressure?
   Light and power service
   Sewage disposal—Where? How deep?
   Storm sewer—Size. Depth.
   Telephone service
   Garbage—collection service
   Trash—collection service
   Street sweeping
   Street lighting
3. *Committee on Neighborhood Character and Conveniences*
   Nearness to schools: elementary, high school
   Nearness to shopping: local center, downtown center, bus or car available?
   Nearness to: recreation playground, city park, museum, *etc.*
   Nearness to: railroads, street cars, noisy highways, manufacturing plants, sewer treatment plants, slaughter houses, *etc.*

4. *Committee on Taxation*

a. Real and assessed values:.....County.....City
How tax rates are figured:.....County.....City

b. County tax rate .....
City tax rate .....
School district tax rate.....
Tax rates on other districts:

Cemetery .....
Mosquito abatement .....
Irrigation .....
Others .....
.....

Total of all Taxes $ .....

5. *Committee on Costs*

If one lot does not possess the services or improvements other lots do, we must be able to evaluate what is lacking so as to compare all lots on an equal basis. Need to compare rural *vs.* city lots.

a. *Lot costs*

Cost per front foot.....
Cost per square foot.....

b. *Improvements*

Cost of street paving per square foot .....
Cost of sidewalk per square foot .....
Cost of curb and gutter per lineal foot .....
Cost of septic tank .....
Probable cost of water well .....

6. *Committee on Legal Aspects*

a. *Deeds*

Types of deeds
Deed restrictions
Title search

b. *Purchase contracts*

Partial payments
Public sales

c. *Location and insurance*

7. *Committee on Relation of Lot to Plan of the House*

What constitutes a good house plan has been defined in a previous unit on home planning and incorporated in the *Score Card for Evaluating House Plans.*

a. Lot width

The term "good house plan" will be defined by the planning principles enunciated in the final summary of the unit on home planning and in the score card there developed.

(a) Cut out of current magazines or planning books a number of house plans and ascertain the scale to which they are drawn.

With the score card developed previously, "score" or "rate" these plans.

Discover the narrowest acceptable one-story five-room plan.

Discover the narrowest acceptable one-story six-room plan.

Discover the narrowest acceptable two-story or part two-story five-room plan.

Discover the narrowest acceptable two-story or part two-story six-room plan.

List the additional minimum width required by city ordinance to accommodate each of these plans on lot. *This is a minimum width for good lots.* List for each the "desirable" (rather than the minimum) width of a lot. *This is the desirable standard for lot widths.*

(b) Other factors of lot size

Collect plans of houses designed for an irregularly shaped lot and score these.

Search your community for irregularly shaped lots.

Bring in examples of buildings on irregular lot shapes that have worked economically and advantageously or have resulted in waste space and unsatisfactory usage of the land.

(c) Contour differences

Collect plans of houses designed for lots that vary in level.

Rate these plans.

Note the devices or schemes used to take advantage of uneven lots.

These committees and their work suggest a great variety of activities, study, and consultation. Where possible, boys with announced vocational objectives should work in their elected field. Thus a boy heading for architecture should see an architect or engineer about soil analysis; a pupil heading for law should work on the legal aspects; a pupil heading for contracting or engineering should be in on the cost estimates, *etc.*

Culminating Activities

1. Each committee should make a final report. Reports should be illustrated and ample opportunity for discussion given.
2. With this material in hand, a score card, suitable for use in evaluating residential lots, should be developed.
   a. Consult your mathematics teacher with respect to the principles used in making and "weighting" score cards.
   b. Try your score card on one or two lots that the members of the class think are "good" and on one or two that most agree are not desirable lots.
3. Summaries of the findings of the Committee on Taxation, the Committee on Costs, and the Committee on Legal Aspects, together with a copy of the *Score Card For Residential Lots,* should be reproduced and given to each member of the class.

Outcome	*Evidence of Achievement*	*Subject To Which Outcome Relates*	*Aim To Which Outcome Relates*
Do the pupils co-operate more effectively than before?	To what extent has each pupil co-operated within his ability to develop the work of his committee and that of the class as a whole. List specific and typical instances. To what extent does the quality and scope of the final report indicate the co-operation of many persons? Have pupil groups worked together with courtesy and tact?	Social Studies	Co-operation
Have pupils learned to accept responsibility?	To what extent have pupils been faithful and persistent with respect to their assignments? Have pupils continued to work industriously and co-operatively when their contribution has elicited little recognition or perhaps some ridicule? Within the group and as individuals, have the pupils evinced self-control and shown an understanding of the difference between freedom and license? Can this group continue to work consistently without a teacher present?	Esthetics Character Building Social Studies	Responsibility

Outcome	*Evidence of Achievement*	*Subject To Which Outcome Relates*	*Aim To Which Outcome Relates*
Have the pupils gained understandings and information leading to more effective social behavior?	Has this unit developed concern in pupils with respect to the improvement of the home environment? Have a number of the pupils received practical experiences in the field of their vocational choice of such a nature as to deepen their appreciation of its significance to society? Have these experiences awakened new interests and developed existing interests in this area?	Social Studies	Social Effectiveness
To what extent have pupils learned to apply the scientific attitude?	Have the pupils learned to gather original data and compile and evaluate them? Have the pupils recognized experts in the community and consulted them? As a result of these activities, have pupils come to entertain new ideas and new points of view? Has participation in this unit stimulated pupils to seek and accept new ways of doing things?	Social Studies	Application of the Scientific Method

Outcome	*Evidence of Achievement*	*Subject To Which Outcome Relates*	*Aim To Which Outcome Relates*
To what extent has this unit encouraged creative activities in pupils?	Have the pupils increased their knowledge and appreciation of words? Have they been induced to read more widely? Have their emotions and their ideals with regard to homemaking been extended and developed? Are they now better able to release ideals and convictions regarding homemaking? Are they more sensitive to ideals and motives?	Social Science	Creativeness
To what extent has this unit helped to develop self-respect in pupils?	The pupils have participated in planning the unit. So much so, that it is honestly theirs. The pupils have welcomed tests, measurements, logic, and other forms of evaluation and appraisal and have given up old ideas for better ideas even when some loss of face was involved. The pupils have learned to stand for what seems to them to be right or intelligent or socially desirable even when the opposition has represented a majority. Pupils have learned to face facts about their own personality, ability, or conduct; to accept constructive criticism; and to replan work in accord with these truths.	Social Science	Self-Respect

plan work in accord with these truths.

Outcome	*Evidence of Achievement*	*Subject To Which Outcome Relates*	*Aim To Which Outcome Relates*
To what extent has the pupil been introduced to new knowledge of a practical and useful kind?	He has become acquainted with the vocabulary of this subject and he has learned to use and spell the new words involved. He has had actual practice in survey methods; in test or 'score' construction; in quantity estimating; in contacting experts; in eliciting, organizing, and interpreting data; in expressing himself orally and in writing. He has read pertinent literature. He has learned to use an engineer's scale and to draw and read plat maps. He has become acquainted with the practical law involved. He has made ingenious, interpretative charts and graphs. He has become better acquainted with his city and its provisions for homemakers. He understands the nature of deed restrictions, city ordinances, building codes, and the work of the city and Regional Planning Commissions. The class knows how to evaluate a lot and what steps are involved in its purchase.	Social Studies English Spelling Mathematics Esthetics Homemaking Law and Other Vocational Fields	Increased Useful Knowledge
To what extent has this unit helped pupils to understand the community, its government and procedures, and the opportunities, privileges, and protections it affords its citizens?	The class has worked together on a democratic basis. City and other officials have been contacted and their work and aims better understood. The class understands property taxation methods.	Civics Social Studies English	Participation in Democracy

IV. Developing Instructional Materials in Resource-Use Education

AN example of the work being done in the development and use of a state's resources is a source book on Kentucky's resources. The purpose of this volume is to provide information on Kentucky's resources and the part they have played in the development of the economic and cultural life of the state. The major topics included in the volume are: soil, water, forests, wildlife, parks and recreation areas, native flowers, trees and shrubs, minerals, and human resources.

The volume had its origin in a conference sponsored by the Committee on Southern Regional Studies and Education held in Gatlinburg, Tennessee, in September, 1944. To this conference representatives of fourteen southern states were invited. Among Kentucky's delegates was the Commissioner of Conservation for Kentucky. He was interested in sponsoring a project that would enable children of school age to learn how the resources of the state could be developed more intelligently and used more wisely.

On his return to Kentucky, the Commissioner of Conservation conferred with the State Superintendent of Public Instruction and invited his co-operation in sponsoring the program. A chairman was agreed upon and work was begun. Some of Kentucky's most able men and women helped in gathering information and writing a report on Kentucky's resources. Each chapter was prepared by a specialist or a committee of specialists.

In the summer of 1945, a workshop on Kentucky's resources, made possible by a special grant from the General Education Board, was held at the University of Kentucky. Participants in this workshop reviewed the manuscripts which had been prepared by the committees. The volume, designed as a source book, was then edited and published by the Bureau of School Service of the University of Kentucky. Members of the workshop made plans for the translation of the manuscripts into instructional materials suitable for upper elementary and junior high-school pupils. Several translations of the chapters were made. For example, one of the translations, "Minerals,"

was written in story form and entitled "A Summer with the Allens." The story traces the summer activities of the parents and their two children, David and Betty. The son becomes interested in rock formations as a result of a vacation trip along the Kentucky River; the parents encourage this interest; and eventually, the entire family is searching for facts about Kentucky's minerals. An excerpt from the source book, *Kentucky's Resources* and the corresponding translation will illustrate the method employed in this "stepped-down" presentation. From the original manuscript the following passage is quoted:

> Shales that are rich in organic matter (bituminous) may be heated to produce vapors from which oil, gas, and other derivatives are secured. Oil shales have been so utilized in Scotland for many years, and in this country some development has been attempted in Colorado and Wyoming. However, as long as adequate supplies of crude petroleum may be obtained by drilling operations, oil shale has only potential importance.
>
> In Kentucky, bituminous shales of Devonian and Mississippian Age in the Knobs region constitute the bulk of our available reserves. Similar shales of Pennsylvania Age occur in both the eastern and western coal fields, but the beds are relatively thin and their future importance problematical. Estimates of the amount of oil shale available in the state run as high as 100 billion tons with an estimated possible yield of 50 billion barrels of crude petroleum.
>
> Although Kentucky's oil shale has no commercial value now, we cannot overlook the fact that reserves of crude oil are rapidly declining. Oil shale is unquestionably a potential source of the petroleum products that the world will continue to require.

This passage has been translated in the "stepped-down" version as follows:

> "There is another very important waste which we can stop," continued Mr. Montgomery without giving David a chance to speak. "On most oil fields, several wells are drilled where only one or two are needed. We are draining new fields too quickly and are pumping far more oil than can be used at one time. As a result of these and other forms of waste, Kentucky and America may face an oil shortage within the next fifty years."
>
> "Isn't there any way in which we can get oil?" asked David.
>
> "Oh, yes," replied Mr. Montgomery. "A kind of rock called shale, that is full of plant and animal remains, may be heated to produce vapors from which oil and gas can be secured. Kentucky's shale is found mainly in the Knobs region which borders the Bluegrass, but shale is also found in the eastern and the western coal fields. When our oil supply is gone, oil shale may become our greatest source of supply. But this is no excuse for wasting the oil and gas that are so necessary to us and upon which people of the future may also depend."
>
> Mr. Montgomery rose, picked up his handbag from the desk behind him, and turned again to David.
>
> "I must go now," he said, "I hope I've answered a few of your questions. I'll be back again in a few weeks, and we can talk again if you want to."

"Thank you," said David, "I would like to talk to you again sometime. I want to learn everything I can about Kentucky's minerals before this summer is over." Mr. Monigomery told them good-by and drove away. Mr. Baker and David began to clean the station in preparation for the day's work. David was absorbed in his thoughts, which were soon broken by the familiar words around a service station: "Fill it up!"

The complete translation of the chapter on minerals for upper elementary and junior high-school levels follows.

A SUMMER WITH THE ALLENS

David Allen and his father, the principal of Commonwealth High School, sat quietly in their yard watching the sun sink out of sight beyond the horizon. In the house, David's ten-year-old sister, Betty, was helping her mother with the supper dishes. It had been a busy day for the family, especially David. It was June 10, and David was celebrating his twelfth birthday. The family had returned that afternoon from a trip through central and southern Kentucky. David thought of the many new places, people, and things he had seen. All had been wonderful, but now he was thinking most about the rock formations he had seen along the Kentucky River. The rocks were so flat and evenly placed that they reminded him of the bricks in his own house.

David was roused from his thoughts by his father's question, "What is wrong, David? Are you tired?"

"No, Dad, I'm not tired. I've just been thinking about the cliffs we saw today along the Kentucky River. How did those huge rocks happen to be in layers? What made them so even?"

"Well, David," replied Mr. Allen, somewhat surprised at his son's interest, "I am not a geologist, but I was a member of a science club in high school and later had several science courses in college. We learned about rocks and how they are formed. Perhaps I can tell you something about them.

"For millions of years, Kentucky was beneath the sea. Plant and animal matter floating in the water finally settled to the bottom and turned into rock. Since this rock was formed by sediment floating in the water, it is called sedimentary rock. It is often found in layers. In sedimentary rock there are traces or even parts of animals and plants that lived many years ago. These are called fossils. They help geologists understand the history of plants and animals living when the rocks were formed. By studying rock formations and the fossils in them, geologists have been able to learn the age of the rocks."

"How old are the rocks in Kentucky?" interrupted David.

"I am afraid I can't answer that question without a little study. I'm sure we can find the answer in the high-school library. Tell your mother and sister where we are going, and we'll walk up to the school."

"Fine!" said David as he ran toward the house. He stopped suddenly at the front door. "Father, do you have your keys?" he called.

Mr. Allen felt in his pockets. "No, I believe I left them on my desk in the study. Please see if they are there."

David entered the house and soon returned with his father's school keys jangling in his hand. They walked together out the front gate and along the white picket fence surrounding their yard. The sun had disappeared behind the hills, but a full moon had just risen above the treetops to their left. An automobile backed out of a driveway in front of them and quietly pulled away, ahead of them. David could hear a train slowly climbing the long hill south of their little town. As they turned the corner toward the school, David broke the silence.

"Father," he said, "we are certainly lucky to be able to live so comfortably. On our trip we saw many people living in very poor homes. Of course, our home isn't large or expensive, but it is neat and attractive. Our town is not as big or as wealthy as some other places, but it is a good place to live, and we always have the things we need."

"Right, David! Those of us who live in this little town, like those living in many other towns and cities and on farms in Kentucky, are very fortunate. People haven't always lived so comfortably. In fact, when you grow up, you might find it difficult to live as comfortably as we do now. Certainly, this will be true in a few years if the people of Kentucky do not protect the natural resources we now have and use them wisely."

"Natural resources—do you mean things like forests?" asked David.

"Yes," replied Mr. Allen. "But forests are only one of our natural resources. We've been talking about rocks. Do you realize how rocks like those you saw today have aided man's progress? Minerals such as coal, petroleum, and natural gas, are valuable resources in Kentucky. These minerals are always found in rocks. In fact, the rocks themselves are often valuable minerals. Today we traveled about 200 miles in our automobile. An automobile is built of steel which could not be made without minerals. Trains, airplanes, bridges, and tall buildings are all possible because people have learned to use the mineral resources stored in rocks."

"Were there minerals in those rocks along the Kentucky River?" asked David.

"Probably," said his father as they turned into the school yard. "I do know that, while Kentucky is not as fortunate as some states, it is rich in mineral resources."

Mr. Allen paused at the front door of the school and waited for David to unlock the door. David, suddenly realizing that he had the key, stepped to the door, unlocked it, and handed the keys to his father. As they entered the building, his father snapped on the light and continued his explorations.

"You see, David, the thing that worries me and is worrying many other Kentuckians is that we are wasting so much of our mineral resources."

"Oh, yes," interrupted David, "I know what you mean. We are wasting our soil and forests, too."

"That is true," said his father as he unlocked the library door. "However, there is a difference. We can improve the soil by correct farming and we can plant young trees to replace our forests. But, when we have used coal, oil, natural gas, and other minerals, they are gone. They can never be replaced."

Mr. Allen stopped in front of the library file, fingered through the cards, and located the number of the book he wanted. David followed him across the room to the shelves lined with books. Mr. Allen found a bulletin. As he removed it from the shelf, David noticed the title, *Kentucky's Resources.*

"Now, let's see, you wanted to know the age of rock in Kentucky," said his father turning through the bulletin until he found the correct page. He read silently for a few minutes and then, seating himself in a chair, motioned for David to join him.

"This says," began Mr. Allen, "that the ages of rocks in Kentucky vary. In the Bluegrass region of central Kentucky, some of the rocks at the surface are 500 million years old. The newest rock was formed about 60 million years ago in what is now the Jackson Purchase area of western Kentucky."

Mr. Allen stopped reading and looked at his son, who was silently trying to grasp what his father had read. David nodded his head, and his father continued.

"Here is some more information I think you would like to know. You were wondering why the rocks we saw along the Kentucky River are in layers. Well, this isn't true everywhere in the state."

> While most of our rocks were first formed in layers, this does not mean that all are still flat. In many places in Kentucky, the rocks have not only been folded but have been broken and displaced. After Kentucky had been under the sea for millions of years, there was an uplift and the land rose above the water. Great swamps were made in which much of our coal was later formed. Many years later there was a great earth change which raised the land well above the sea. This movement of the land caused many breaks and folds in the rocks, displacing a large number of layers formed earlier. Thus, in many sections in Kentucky, the rock is uneven, and rocks of different ages are found at the surface in various parts of the state.

Mr. Allen paused and then asked, "Does that answer your question?"

"Yes, it does, Dad, but I think I'll study it some more when I have time."

"Good," said his father as he replaced the book. "I'll be glad to help you whenever I can."

Father and son walked quietly toward their home. Mr. Allen was very happy. He was proud that David had become interested in a subject which would mean so much to his future happiness and the happiness of all the people in Kentucky. David, too, was thinking. He was curious—more curious than ever. Rocks, which had always seemed so useless to him, had suddenly become fascinating; they seemed to him now like a storehouse of wealth—of coal, petroleum, natural gas, and many other useful things. David knew very little about these minerals. He decided to spend his spare time during the rest of the summer vacation learning the answers to the many questions which ran through his mind.

As they entered the gate, they heard piano music coming from the house. Through the window, they saw Betty seated at the piano. Mrs. Allen sat on the couch across the room reading the evening paper.

"By the way, David," said Mr. Allen, placing his hand on his son's shoulder, "seeing Betty and your mother through that window makes me think of another mineral which has made our lives much happier."

"What is that?" asked David expectantly.

"The glass in that window," continued Mr. Allen, "is an excellent example of the use of minerals."

"Do you mean that glass is a mineral?" inquired David.

"It is a mixture of several minerals. I know that two of these minerals are produced in Kentucky. Sand is one of the principal minerals used in making glass like that in our windows. I saw one of Kentucky's sand mines as I went through Carter County last fall on my way to a teachers' meeting.

A number of counties mine some sand, but Carter County and Hardin County are our largest sources."

"My!" gasped David, beginning to realize the importance of what his father had said. "If we didn't have sand we wouldn't have windows, or electric lights, or glass jars like Mother uses for canning!"

"That's right, David. In fact, many of the most useful things in our homes are made of glass."

"But you said you knew two minerals produced in Kentucky that were used for making glass. What is the other?" asked David.

"The other mineral is fluorspar, but, here again, I can't help you much. I do know that it is an important mineral. Most of the Kentucky fluorspar mines are in the western part of the state, though the central part has a few mines that are being worked. I think Kentucky produces about one half of the fluorspar mined in the United States, but I'm not sure about this."

"Could I find the answer in our encyclopedia?" asked David.

"I'm sure you can. You can probably learn of other uses of fluorspar, too."

As they stepped on the porch, Betty stopped playing and turned toward the door. "Hello, strangers," she teased. "Mother and I had begun to think you weren't coming back."

"We've been discussing some very important questions," replied David as he walked hurriedly across the room and into the study.

"Where is he going in such a rush?" asked Mrs. Allen, turning to her husband.

"David became interested in the rocks we saw today along the Kentucky River. I told him that sand and fluorspar are used in making glass, but I couldn't give him much information about fluorspar. He wants to look for it in the encyclopedia."

Mr. Allen seated himself, picked up part of the paper and began reading. His wife continued her reading, and Betty moved slowly toward the door of the study. She, too, found it hard to believe that sand could be used in making glass, and she had never heard of fluorspar. As she was about to enter, David appeared in the doorway. In his arms were two volumes of the encyclopedia.

"You were right, Dad!" he said enthusiastically. "Kentucky does produce almost half of all the fluorspar mined in the United States. It also produces about one seventh of all that is mined in the entire world."

"What about the uses of fluorspar?" asked his father.

"It is used in making glass all right," said David, as he seated himself near the light, "but that is certainly not its only use. Listen to this."

Fluorspar, a mineral of many different colors, is used in making enamelware, glass, and chemicals, but its most important use is in making steel. Steel is a mixture of many different metals such as iron, nickel, copper, and tungsten.

"The small wire in the electric light bulb is made of tungsten," interrupted Mr. Allen.

David glanced over his left shoulder at the floor lamp and then continued reading.

Fluorspar is used to fuse or bind these different metals to make steel. Fluorine is a gas made from fluorspar. It is used to cool the air in the engines of tanks and airplanes.

David thought a moment, closed the book, and looked up at his sister. "Betty, I'm tired. I think I'll go to bed."

"I think you'd better go too, Betty," said Mrs. Allen. "You both have had a long day. We'll learn more about minerals tomorrow."

David put the books on the shelves. Both children told their parents goodnight and slowly climbed the stairs to their bedrooms.

Since Mr. Allen had two days of vacation left, and it was not necessary for him to be at his office early the next morning, he did not set the alarm before going to bed. He and his family were so tired from their long trip the day before, that all were still sound asleep when the clock on the county court house struck eight. Fifteen minutes more had passed before Mrs. Allen awoke, dressed, and went downstairs to start preparing breakfast. Still later, Mr. Allen awoke and noticed how late it was. He dressed hurriedly. He could hear Mrs. Allen working in the kitchen, and, as he walked down the steps, he could smell the fragrance of coffee.

"It smells good!" said Mr. Allen, sticking his head in the kitchen door.

"Good morning!" replied Mrs. Allen. "I was afraid I'd have to wake you up. Breakfast is nearly ready."

"Shall I call the children?" he asked.

"Suppose we let them sleep this morning," said Mrs. Allen, putting a steaming plate on the table. "They were so tired last night, and they are not doing anything special today."

Mr. Allen seated himself opposite his wife.

"By the way," he said, "since David has become so interested in minerals, I believe we should encourage his interest at every opportunity. I can't think of a better way for him to spend his summer vacation than learning about Kentucky's minerals."

"I think you are right," said Mrs. Allen. "And did you notice that Betty was interested too when David was talking about glass?"

"Yes, I did. We mustn't miss any opportunities to help them. We can find many examples of the use of Kentucky's minerals right in this house. We use practically all of them in one way or another. At any rate, let's keep our eyes open. Well, I must get down to the office and answer some letters before the mail goes out. I'll see you at lunch."

Mr. Allen walked to the front hall and removed his hat from the hat rack, but stopped as he opened the door and called to his wife.

"Will you ask David to plant those two rows of beans this morning? We talked about it last week. He'll understand what to do."

"Yes, I will," replied Mrs. Allen.

Mr. Allen thanked her and left the house. He had hardly closed the door when Mrs. Allen heard footsteps in Betty's room, heard her call her brother across the hall, and heard David mumble his reply. Soon the two children entered the kitchen with the cry, "We're hungry! When do we eat?"

"Breakfast is ready," laughed Mrs. Allen, as she poured David's milk.

"Mother," said Betty, "I'm sorry I overslept and didn't help you with the breakfast. I'll do the cleaning for you, though."

"That's all right," replied her mother. "We thought you needed the rest. David, your father wants you to plant some beans this morning."

"I'll do that as soon as we finish breakfast, Mother."

They finished breakfast and David went to the garden. Mrs. Allen and Betty began clearing up the dishes. As Betty dried a glass, she said, "Mother, was this glass made of sand, like the panes in our windows?"

"Yes, Betty," replied Mrs. Allen. "And this plate I am washing and that large flower pot in the window are made of another very important mineral."

Mrs. Allen paused as she noted the look of surprise on her daughter's face and then said, "Do you find that so hard to believe?"

"Well, it is a little hard to believe! But I wasn't thinking so much of that. I was really wondering how you happened to know that dishes and flower pots are made of a mineral."

"Oh, I see!" replied her mother. "You know I go to the homemakers' meeting each month. At the last meeting the home demonstration agent, Miss McWilliams, discussed with us the subject of dishes. She told us the

kinds of dishes and pottery that would be best for different uses in the home, and the kinds of clay that are used to make household articles."

"Clay!" exclaimed Betty. "Isn't clay just mud?"

"Yes, but very useful mud. There are many different kinds of clay, used for many different articles. Miss McWilliams told us that Kentucky has a large supply of clays that can be used in making dishes and pottery. Of course, she made it clear that this is not the only use of clay, and maybe not even the most valuable use. But it would be hard for us to set our table if we didn't have things made from clay!"

"What are some other things made of clay?" asked Betty.

"I'm not sure I remember all that Miss McWilliams told us. She mentioned bricks, like those in our house, and tiles like those we use to carry the water from our kitchen sink. Why don't you do as David did last night? Look in the encyclopedia!"

"I believe I will," said Betty, as she dried the last plate and put it in its place in the cabinet.

Betty sat down on the floor in front of the bookshelves, pulled out a volume of the encyclopedia, and began searching for "Clay." When she found the page, she read silently for a few moments and then quickly replaced the book and ran to the kitchen.

"Did you find what you wanted so quickly?" asked her mother.

"No, I didn't" replied Betty. "There is enough there, but it doesn't tell about Kentucky. I want to know about Kentucky clay."

"Well, Betty, why don't you go to the school and have Dad help you find it? He has a bulletin on Kentucky's resources in the library."

"That's what I'll do," said Betty, and hurried away.

Betty found Mr. Allen in his office busily writing letters. She told him what she wanted. He picked up a bulletin lying on his desk, and leaned back in his chair.

"How funny!" he said. "This just arrived in the morning mail. It's a bulletin on Kentucky's resources I ordered for my own use. We'll take it home where we can all use it. Sit down and let's see what it says about clay." They learned that:

> Kentucky has a large supply of clay which can be used for making brick, tile, sewer pipes, dishes, pottery, and other cheap, clay products. Fire clay, a much better grade of clay, is also found in Kentucky but in smaller amounts. Fire clay is used in building fireplaces and grates because they must be able to withstand great heat.
>
> Clay is also valuable in making cement. Building materials such as brick or

stone must be bound together. Clay was first used for this purpose, but it becomes soft when wet and will not harden or set in water. This fact soon led to the discovery of cement, a material that hardens after mixing with water. Portland cement is limestone mixed with clay, and since it will harden under water, it is very necessary for the building of bridges and dams. In Kentucky, Portland cement is manufactured on a large scale at Kosmosdale, about twenty miles south of Louisville on the Ohio River.

"Betty," Mr. Allen said, "this is a good example of something we should all remember about minerals."

"What is, Dad?" asked Betty.

"You asked me to help you find the uses of clay. One of these uses is the making of cement. But limestone, another mineral is used with the clay to make Portland cement. Sand and gravel, two other minerals, are mixed with cement and water to make concrete. As you know, concrete is one of our most valuable products today. You see it is necessary for us to save all of our minerals. They must be used together if we are to receive the most value from them."

"I see," said Betty. "It is like our car and the tires. The car wouldn't do us any good without the tires, and the tires aren't any good to us without the car."

"Yes, that's about what I mean—but limestone has other uses than making cement. Listen to these," said Mr. Allen, as he began to read aloud from the bulletin.

Like sandstone, limestone is used throughout the state as building stone, as crushed stone for roads, as a solid foundation for railroads, and as monuments. Boone's Monument and the Old State House at Frankfort, and the shaft of the Henry Clay Monument in the Lexington Cemetery are of limestone quarried along the Kentucky River within the Inner Bluegrass. Limestone and sandstone suitable for building are found in almost every part of the state. Limestone is crushed to make lime for use on the soil, and rock phosphate, a mineral very necessary for the production of good crops, is found in limestone. The rich soil of the Inner Bluegrass is largely due to the rich deposits of rock phosphate.

"That reminds me, Betty," said Mr. Allen, "is David planting the beans this morning?"

"Yes," replied Betty. "Maybe he has finished by now. He was getting out the garden tools and the fertilizer when I left."

"That fertilizer David is using contains phosphate. As I have just said, phosphate comes from limestone. The lime that we put on the garden earlier came from limestone, too."

"Well," said Betty, "I'm beginning to see how important minerals are. In nearly everything we do we use some mineral!"

"Yes, Betty, the list of minerals is very long. What about coal, petroleum, and natural gas? We haven't mentioned them yet. They are probably more valuable than any of the others."

"I know," said Betty, "but I've studied enough for today. I'm going swimming this afternoon, so I had better get back."

"Take this bulletin with you and put it with our other books," said Mr. Allen.

Betty took it and left the office. Mr. Allen returned to his letter writing. He had typed less than a line when the phone rang. He picked up the receiver and said, "Commonwealth High School, Mr. Allen speaking."

"Hello, Mr. Allen," came the voice over the line, "This is Baker at the Quick Service gas station."

"Yes, how are you, Mr. Baker?"

"Not so well right now," replied Mr. Baker, "I'm in a little trouble. I thought you might be able to help me."

"I'll be glad to do anything I can," replied Mr. Allen. "What's the trouble?"

"My assistant is sick," explained Mr. Baker. "He had to go home a few minutes ago. Thursday, Friday, and Saturday are my busiest days, and I need someone to take care of the pumps while I am busy with other things. David worked here on Saturdays last winter and did a good job—I wonder if he will help me out for a few days?"

"I'm sure he will," said Mr. Allen. "He hasn't anything else that must be done and he liked his work last winter. It's almost noon, so I'll run on home and tell David. He can eat and come right down after lunch."

"Fine!" said Mr. Baker. "I'll certainly appreciate it."

As Mr. Allen entered the gate at his home, he saw David in the tool shed with the rake and hoe. Mr. Allen walked around the side of the house to the shed just as David came out.

"Oh, hello, Dad!" said David. "I finished planting the beans. I was cleaning the tools and putting them away."

Mr. Allen told David about his conversation with Mr. Baker. David was very enthusiastic. He had always enjoyed working for Mr. Baker. Besides, he knew that gasoline is made from petroleum, and he wanted to ask Mr. Baker some questions about this important mineral. He ate lunch and hurried down the street to the gasoline station. Mr. Baker was greasing an automobile.

"Boy," said Mr. Baker, "I'm glad to see you! I've been jumping from

this grease job to those pumps for the last hour. This car has to be ready at one o'clock and I've hardly begun. If you'll take care of the customers for me, I'll try to finish."

"Yes, sir!" said David, taking his place near the pumps. The next four hours were busy ones. It seemed that everyone was traveling and that all of the cars were out of gasoline at the same time. He had hardly filled the tank, checked the oil, water, and tires, and cleaned the windshield of one car before another pulled in and the driver said, "Fill it up!" By four o'clock the words, "Fill it up!" began to ring in his ears. A little later the rush died down. He and Mr. Baker found themselves with nothing to do. Thankful for the rest period, they sat in two of the chairs which always lined the front of the station.

"David, you handled your job very well. I don't know how I could have taken care of everyone without you."

"I'm tired, but I certainly enjoyed it," said David, wiping his hands. "Mr. Baker," he continued, "I'm interested in Kentucky minerals—I wonder if you could tell me about petroleum in Kentucky?"

"I really don't know very much about it, David, but I am trying to learn. I think I could do better work here if I knew something about the history and uses of the products I sell.

"I do know that there are a lot of petroleum by-products. The gasoline, motor oil, greases, and kerosene—or coal oil, as it is often called—that we sell here are only a few of these by-products. Fuel oil, coke, asphalt wax, carbon black, and many acids are all made from petroleum. Petroleum is found in pools under the ground. These pools of oil are really the remains of plants and animals that lived many years ago when the rocks were being formed. Oil can't be formed just anywhere in the earth. It is held in reservoirs or basins in the rocks. Sandstone and limestone rock make good reservoirs, but there are more limestone reservoirs in Kentucky. There are covers, or caps, of rock over the reservoirs to hold the oil in."

Mr. Baker paused as a car pulled into the station. David jumped to his feet and once more heard the driver say, "Fill it up." He did so, hurriedly, gave the driver the change from a five-dollar bill, and returned to his chair as the car drove away.

"As I was saying, David, these caps over the reservoirs of oil will not allow it to escape. Most oil reservoirs were first discovered by accident. I have heard old Jim Jones, who was the oldest man in our town when I was a boy, tell how Kentucky settlers used to drill wells for salt water, but often

they struck oil instead. That was about 150 years ago. The oil was sold as medicine in little bottles selling for forty or fifty cents. Later, people learned to make kerosene from oil. As more and more uses were found, people began to dig for oil instead of salt water. Still it was usually an accident if they struck oil, because they just selected a place and began digging. This was known as wildcatting and often resulted in waste of money and time. Today, oil men study the rocks near the surface, and, if possible ,those that are beneath the surface. But still the search for oil is very uncertain. Drilling for oil is the only sure way of proving that it is there. This is very expensive."

"How do they drill for oil?" interrupted David.

"I know someone who could tell you about that better than I can. Mr. Montgomery, the state representative for our company, travels all over the state. He has seen wells being drilled and wells that are pumping. He is supposed to stop here early Saturday morning. Why don't you come down a little early and talk to him?"

"I will," said David as he leaned back in the chair.

"It looks as if our rush is starting again," said Mr. Baker, nodding toward two cars which pulled into the station from different directions. And the rush was on. David and Mr. Baker hardly had time to speak until they closed the station at 6 o'clock.

Friday was an even busier day. David was so tired when he got home that he ate supper, listened to only one of his favorite radio programs, and then went to bed.

David was up very early the next morning. He felt like a new person. He ate his breakfast and started for the gas station at once, so that he would not miss Mr. Montgomery. It had rained during the night and the clouds were still hanging low in the sky.

"Maybe we won't be so busy today," he thought as he crossed the street in front of the station.

Mr. Montgomery was in the station. Mr. Baker introduced David and told Mr. Montgomery the questions that he would like to have answered.

"Yes, I've been in several oil fields and have watched the men drill for oil."

"Good," said David, "tell me anything you can about them!"

"Well," began Mr. Montgomery, "most drilling in Kentucky is done with cable tools. One end of a cable is fastened to a drum. The cable runs through a pulley at the top of a tall tower or derrick. An engine turns the

drum, and a drill bit on the loose end of the cable is raised and dropped into the hole. The bit pounds through the rocks. As the well goes deeper, smaller and smaller bits are used.

"After a well is drilled, the oil may come out naturally or it may have to be pumped out. Even wells that flow naturally at first will finally stop flowing. Many of the older wells in Kentucky have already stopped and have to be pumped now."

"That's very interesting," said David. "But Mr. Baker was talking the other day about by-products from the petroleum. How do they make gasoline, kerosene, and the other by-products from the petroleum?"

"By refining the crude oil," said Mr. Montgomery. "In refining, the petroleum is first separated from any water that may be present. Then it is heated. Heat turns the petroleum into a vapor much like the steam that comes from boiling water. The different parts do not become vapors all at the same time. Gasoline forms a vapor easily without much heat. Other by-products become vapor at high temperatures. As the vapors come off at the different temperatures, they are cooled to form the different by-products of petroleum."

"Does that mean there isn't any waste?" asked David.

"Well, not exactly that," said Mr. Montgomery, "but the waste from refining is certainly far less than it used to be, because the refiners have learned ways to prevent waste.

"Nature, though, has wasted a geat deal of oil. Some large oil pools in western Kentucky and smaller ones in eastern Kentucky were on or near the surface of the earth. The oil evaporated, leaving rock asphalt. Rock asphalt is a coarse-grained sandstone that is a valuable mineral, but not nearly as valuable as oil. Kentucky produces about one third of the rock asphalt in America. Texas is the only state that has a larger production. Streets and highways are surfaced with rock asphalt. It can be used without heating, and since it is already mixed, it requires only crushing and laying. But people could get along very well without rock asphalt—the natural asphalt found in Trinidad and the asphalt refined from crude oil can be mixed with rock and used in place of rock asphalt. So I believe we can say that nature has wasted some of our valuable oil supply."

"But, Mr. Montgomery, how can we prevent this loss?" asked David.

"We can't" said Mr. Montgomery, "but we can stop wasting the petroleum and gas that is left."

"Do you mean natural gas?" asked David.

"Yes,—and, by the way, the story of natural gas is very much like that of oil. Both are found in pools; both are deposits of plants and animals that lived many years ago; limestone and sandstone are good reservoirs for both, but most gas in Kentucky is found in limestone reservoirs. Natural gas has no color and almost no odor. Small amounts of natural gas in the air are dangerous because this mixture may cause an explosion. It is not dangerous to breathe, though, unless more than half the air is natural gas. Its main use is for heating and cooking.

"But I started to tell you how we could stop wasting our petroleum and natural gas. In the early days, wells were drilled for oil, but often gas was struck. At that time no one knew how to use gas, so it was allowed to burn or blow away. Enough good fuel was wasted in this way to take care of much of our present need. Not only was the gas lost, but the oil underneath this gas was also lost. Gas expands and pushes the oil to the surface. If the gas is removed, it is much more difficult and expensive, sometimes impossible, to get the oil out. We can certainly see that this kind of waste is not allowed again."

"There is another very important waste which we can stop," continued Mr. Montgomery without giving David a chance to speak. "On most oil fields, several wells are drilled where only one or two are needed. We are draining new fields too quickly and are pumping far more oil than can be used at one time. Kentucky and America may face an oil shortage within the next fifty years."

"Isn't there any other way to get oil?" asked David.

"Oh, yes," replied Mr. Montgomery, "A kind of rock called shale, that is full of plant and animal remains can be heated to produce vapors from which oil and gas can be secured. Kentucky's shale is found mainly in the Knobs region which borders the Bluegrass, but shale is also found in both the Eastern and Western coal fields. When our oil is gone, oil shale may become our best source of supply. But this is no excuse for wasting oil and gas. We need them now, and the people of the future may need them, too."

Mr. Montgomery rose, picked up a leather case from the desk behind him, and turned again to David.

"I must go now," he said. "I hope I've answered a few of your questions. I'll be back again in a few weeks, and we can talk again if you desire."

"Thank you!" said David. "I'd like to talk to you again sometime. I want to learn everything I can about Kentucky's minerals before this summer is over."

Mr. Montgomery told them good-by and drove away. Mr. Baker and David began to clean the station in preparation for the day's work. David was absorbed in his thoughts, which were soon to be broken by the familiar words, "Fill it up!"

On Monday morning Mr. Baker called David and said that the regular assistant was well again and would be back on the job.

For the next two months, David was busy mowing the lawn, working in the garden, and doing many other tasks around the house. His afternoons were often spent at the school, where Mr. Roberts, the athletic director, was directing a community recreational program. He played baseball, softball, tennis, and went swimming. Betty, too, was busy but, like her brother, spent much time at the school. Mr. Allen was busy supervising the summer activities of the school, while Mrs. Allen was occupied by duties at home. However, their interest in minerals was not lost. In fact, it spread from the family to other people in the community.

Mr. Allen introduced the subject of minerals at one of the community forums held in the school building twice each month. The forum group decided to devote the July meeting to a study of minerals. Soon the people realized that two meetings were not enough to complete the study. They had not learned yet about one of the most valuable minerals—coal. Since the forum would not meet during the month of August, they voted to continue the discussion in September.

On the morning of August 20, as David was mowing the lawn, a large truck loaded with coal pulled into the driveway. David recognized the truck. It belonged to Mr. Jasper, the local coal dealer. David remembered his father saying several days ago at breakfast that he must order their winter supply of coal.

David showed the driver where the coal was to be put and then ran to the basement to unlock the coal chute. As he watched the coal pouring down the chute, he began to wonder. Coal was a mineral about which he knew very little, and yet it must certainly be one of the most important. At any rate, he had to fire the furnace! He wanted to know more about the coal they burned.

"Is this good coal?" David asked as he returned to the yard.

"Good coal?" said the driver. "Mr. Jasper never sells anything but good coal."

"How can you tell whether it is good or not?" continued David.

"I can't," said the driver, "but Mr. Jasper can. He studies the different types of coal so he can always have the best for his customers."

"Is Mr. Jasper in his office now?" asked David as a new idea popped into his mind.

"He was when I left," said the driver.

"Then I'm going down to see him," said David. "I want to know what kind of coal is best."

David hurried out of the yard and toward the coal yard. He found Mr. Jasper working in the office.

"Hello, Mr. Jasper," said David.

"Hello, David. What's on your mind? Didn't your father like the coal I sent?"

"That's not why I came," laughed David. "I want to find out something. I don't know good coal when I see it. I thought maybe you could help me. I'd like to learn everything I can about coal."

"Suppose we go out and look at the coal," said Mr. Jasper.

"That's fine," said David as he followed Mr. Jasper into the coal yard.

"This coal you see here," began Mr. Jasper, "is really just a dirty black rock, but it is very important in our lives. Coal was first used by man at a very early date, but the first record of coal in Kentucky is found in the diary of Dr. Thomas Walker. He explored the eastern part of the state in 1750. Coal was first used in making iron products in 1790. After about 1907, more and more uses were found for coal, and today it is Kentucky's leading mineral resource. But you weren't asking about the history of coal mining, were you?

"Well, no—but I'm glad to know anything about coal," replied David.

"Of course," continued Mr. Jasper, "not all kinds of coal have the same value. The value of coal is determined very much by the way it was formed. Coal is a sedimentary rock formed from deposits of plant materials. Not all of this material was deposited at the same time or under the same conditions. The different stages in the formation have given us different types of coal. The first stage is a peat bog or swamp. Live plants are on the surface of a peat swamp, but underneath are layers of dead plants. The plants do not rot because they are under water and air cannot reach them. Bacteria slowly change the dead plants to peat, the first type of coal."

"Is peat the type of coal you sell?" interrupted David.

"Oh, no," said Mr. Jasper, "peat is spongy and is about nine-tenths water. Some of the water has to be taken out before peat can be burned.

Peat provides more heat than wood does, but it is not very good for use in your furnace."

"Where is peat used in Kentucky, Mr. Jasper?" asked David.

"Peat is not an important type of coal in Kentucky," said Mr. Jasper. "But the peat formations many years ago were the beginning of our great coal supply today. You see, David, this coal in my yard is bituminous coal, which is usually called soft coal. It is Kentucky's most important coal supply. Both the eastern and western fields are bituminous. Soft coal burns easily with a long, smoky, yellow flame."

"Was this bituminous coal made from peat?" asked David.

"No, David," continued Mr. Jasper, "there was a stage between peat and bituminous coal. As time passed these great swamps or peat bogs slowly sank and were buried under sand, gravel, and mud. Sometimes the sea passed over them again and left limestone. The great weight of these deposits pressed on the peat and slowly changed it into the second type of coal called lignite. Lignite is usually brown; it is about one-third water, and has a low heat value. There are a few lignite deposits in the Jackson Purchase in western Kentucky, but these are not worth much.

"As the pressure from the deposits of sand, gravel, mud, and rock continued, the lignite coal slowly changed to bituminous coal. As I said a a moment ago, this is Kentucky's most valuable coal supply. There is still another type of coal which is a very valuable mineral in the United States, but it is not found in Kentucky."

"What kind is that?" asked David.

"Anthracite or hard coal," said Mr. Jasper. "Anthracite coal is found only in areas where flat-lying rocks have been strongly folded. Folding produces much greater pressure which finally changes bituminous coal into anthracite coal. It is very black and shiny, and contains almost no water. It burns with a short, blue flame."

"Mr. Jasper, don't you own a mine in Kentucky?" asked David.

"Yes, David, I am half owner of two mines in eastern Kentucky. The Eastern Coal Field supplies about three fourths of Kentucky's coal. It covers all or part of thirty-seven counties and has a total area of 10,400 square miles. This is about one fourth of the entire area of the state. This Eastern Field is divided into four areas, named for the rivers that drain them. After the coal is mined it is carried over the railroads and highways built through these valleys."

"What are the four rivers?" asked David.

"They are the Big Sandy, Licking, Kentucky, and Cumberland Rivers. Harlan County, in the Cumberland River area, leads the state in coal production. The two mines of which I am part owner are located in the Cumberland River area."

"I have seen pictures of people mining coal," said David, " and I have always wondered just how it was done."

"Well, David, in my two mines we use the drift method of mining. In fact, in the Eastern Field almost all mining is done by this method. Tunnels or openings are dug directly into the seam where it shows on the hillside."

"Seam? What is that?" asked David.

" A seam is a layer of coal which is found between other rocks. Clay is usually beneath the coal. Coal seams may be as thin as paper, or nearly 100 feet thick. Most coal is mined from seams three to seven feet thick. The seams in my mines average about four feet. If a seam is less than two feet thick, it is very difficult to mine. Often coal seams are split or divided by clay or other materials. This makes mining difficult or even impossible and lowers the value of the coal.

"But as I started to say, the drift method is used in most mines of the Eastern Field. In the mines I own, the seams are near the bottom of the hill, but many mine openings are several hundred feet up the side of a mountain. From the main entry, many small tunnels lead to the different rooms where the coal is dug. Pillars of coal are left to keep the top from falling. After rooms have been dug all through the seam, the pillars of coal are removed. This is done by using timber to keep the top from caving in. The top is then allowed to settle as the pillars are removed. In larger mines, like the ones I own, machines are used to get the coal, but in many small mines, the coal is mined by hand."

"But didn't I understand you to say that not all coal is mined in this way?" asked David.

"Yes, that is correct, David. Two other methods of mining are used in the Western Field. The hills there are small and much of the coal is near the surface. The earth above the coal is removed and the coal is scooped up and loaded. This method is called strip mining. Another method is shaft mining. If the coal is farther beneath the surface, deep shafts or holes are sunk to the level of the coal. Then tunnels are dug and the coal is taken out of rooms as in drift mining."

"Is the Western Coal Field in western Kentucky?" asked David.

"That's right. The Western Coal Field includes all or part of fifteen

western Kentucky counties. It is much smaller than the Eastern Coal Field—less than half as large. Really only five of the fifteen counties produce much coal. While there are many hills in the Western Field, they are not so steep as in eastern Kentucky. It is really a basin surrounded by a rim of higher and rougher land."

"Mr. Jasper, your coal always burns well. Is all bituminous coal in Kentucky as good as yours?"

"No, it isn't David. The coals of Kentucky are of high grade, but the Eastern Coal Field has coal of higher value. Because it is so good, much eastern Kentucky coal is used for making coke and by-products of coke. The lower grade coals of the Western Field are used to make steam and to heat houses and other buildings."

"Mr. Jasper," said David as they returned to the steps of the office and sat down, "I heard someone say that people waste more coal than they use. Is that true?"

"Yes, it is. The coal is taken out of the mine in cars. It is sorted, cleaned, and loaded into a truck, boat, or railroad car. Finally, after a long journey and much handling, it is dumped into your coal chute. But much of it has been wasted before it gets to you. Part of it is lost in mining and part in moving the coal from the mine to you. Then when you use it, part of it is lost in the form of gas while burning and part goes into the ash pit. Much of this waste could be prevented by correct handling and use."

"How long do you think the coal in the earth will last?" asked David.

"Oh, David, we have a large supply of coal, and it will last for a long time to come. But once it is gone we can never replace it. We should certainly use it wisely and with as little waste as possible."

"I only hope I can remember all you've said. It has been interesting!" said David. "I just hope I can get some of my friends interested when school starts. We ought to have a Minerals Club or something like that in our school. Everyone should know the things I've been learning this summer."

"Don't you have a Science Club?" asked Mr. Jasper.

"Oh, yes, we have that—but we've never studied minerals. Mr. Jasper, would you talk to our Club some day and tell them what you've just told me?"

"Of course I will. In fact, I would enjoy it! But I believe I have a better idea!"

"What is that?" inquired David.

"I make a trip to my mines every few weeks. Maybe the Club could go down with me and see how coal is mined."

"That would be grand, Mr. Jasper!" said David excitedly. "I'm sure Dad will like the idea—maybe he'd go with us!"

"Fine," said Mr. Jasper as he started into the office. "I'll let you know when I can make the trip."

"Thank you, Mr. Jasper. We'll be looking forward to the trip!"

The first day of school finally arrived. Everyone in the Allen family was up early. Breakfast was over in record time, and Mr. Allen left for school. Betty and David rushed upstairs to dress for school. As Mrs. Allen heard them coming down the steps, she dried her hands and went into the living room to tell them goodbye.

Mrs. Allen stood quietly in the door and watched them run down the walk. They turned at the gate and waved to her, and soon disappeared around the corner. Walking toward the kitchen, she glanced at a book lying on the living-room table. On the cover there was a peaceful picture of a white farm-house under a huge old tree. She read the title, *Kentucky's Resources,* and smiled.

Building Trades Apprentices Increase

THE skilled labor force in the construction industry was bolstered further during March, 1948, when almost 10,000 apprentices were employed in the building trades, according to the Information Department of the U. S. Labor Department's Bureau of Apprenticeship, Washington, D. C. This is the largest number ever hired during one month. On April 1, 1948, the bureau had record of 124,294 apprentices, a new all-time high, in those crafts. This total, which was obtained from 6,770 reports from all sections of the country, is an increase of 8.2 per cent over the 114,882 listed on March 1 and represents complete coverage.

This unusually large increase in one month was ascribed by the Department of Labor especially to co-operation between contractors, unions, and government agencies to build up the skilled work force in the construction industry to meet the demands which are being made upon it today and will be made for years to come. The Bureau of Apprenticeship and State agencies give technical advisory service in setting up and maintaining apprenticeship programs.

A breakdown of the apprentices employed on April 1 in the various building trade groups follows: Woodworking trades, 44,721; Pipe trades, 19,321; Electrical trades, 18,163; Trowel trades, 17,063; Sheet metal working trades, 9,620; Painting trades, 8,955; and Other building trades, 6,451.

V. Bibliography For Improvement of Community Living

THIS annotated bibliography of free or inexpensive materials for the improvement of community living has been compiled as a result of experiences in schools co-operating in the Sloan Foundation experiments. The teachers, supervisor, and Sloan staff members of the Sloan Experiment in Kentucky, Bureau of School Service, University of Kentucky, have reported on materials which have proved especially helpful in work related to economic betterment. These materials are listed below.

TEACHERS' REFERENCES

Food and Nutrition. Sacramento, California: California State Department of Education. 1945. 160 pages. 50 cents. This is an excellent handbook for teachers. Part I gives the historic and economic factors in man's constant quest for food. Part II discusses principles of good nutrition.

Gavian, Ruth Wood. *Making School Lunches Educational.* (Nutrition Education Series, Pamphlet No. 2.) Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1944. 28 pages. 10 cents. Procedures by which the school lunch may be made an integral part of the school's educational program are considered in this pamphlet. Both the hot-lunch and packed-lunch programs are analyzed for their educational aspects.

The Iowa Plan for Nutrition Education in Elementary Schools. Des Moines, Iowa: Superintendent of Public Instruction, State Department of Education. 1944. 45 pages. 15 cents. This teachers' bulletin offers excellent suggestions for co-ordinating nutrition teaching in the school with food practices in the home. It also shows ways in which the nutrition program can be integrated with other subjects in the curriculum.

Larson, Agnes, and Been, Marguerite. *Blackboard Lessons on Food.* Chicago: Wheat Flour Institute, 209 West Jackson Blvd. 1942. 40 pages. Free. This booklet contains study outlines for building up an understanding of food values. The study outlines are intended as a starting point for interesting discussions and worth-while activities in the intermediate grades.

Nutrition Education in the Elementary School. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1943. 35 pages. 15 cents. Although prepared primarily for the elementary school, the sections describing the work of

teachers with special training and the services of state agencies in the nutrition program will be of value to teachers in any grade or subject.

Nutritive Aspects of Canned Foods. New York: Nutrition Laboratory Research Department. American Can Co., (Home Economics Division) 230 Park Ave. This book summarizes facts about tin containers and canning procedure for canned foods.

Roberts, Lydia J. *The Road to Good Nutrition.* Washington, D. C.: Superintendent of Documents, U.S. Government Printing Office. 1942. 54 pages. 15 cents. This teacher's handbook gives descriptions of the well-nourished child from birth through adolescence. Points in nutritional guidance are given.

Sherman, Henry C. *Principles of Nutrition and Nutritive Value of Food.* Miscellaneous Publication No. 546. Washington, D. C.: Superintendent of Documents, U.S. Government Printing Office. 1944. 40 pages. Free. Written by one of the leading authorities in the field of human nutrition, this publication describes the various substances in foods that are needed to nourish our bodies.

The Sugar Beet. (A Unit of Work for Intermediate and Upper Grades.) Washington 5, D. C.: The United States Beet Sugar Association. 1944. 35 pages. Free. This booklet gives subject-matter background and a list of possible activities for a unit on sugar. Accompanying the unit are sixteen photographs of various phases in the production of sugar that can be used as a bulletin-board display.

The Teacher's Guidebook. (For a program in nutrition education.) Minneapolis: General Mills, Inc. 1947. 64 pages. Free. The *Guidebook* suggests techniques that can be used to make nutrition education an integral part of the school curriculum. There is also a section of suggestions for extending the nutrition program into the community. The latter will be of value to the high school.

Ten Lessons on Meat for Use in Schools. (Sixth Edition) Chicago: Department of Home Economics, National Live Stock and Meat Board, 407 S. Dearborn St. 1943. 138 pages. Free. This booklet gives authentic facts about meat and meat cookery. Excellent charts, tables, and photographs are used to illustrate the facts.

Todhunter, E. N., and Andes, F. W. *Nutrition Experiments for Classroom Teaching.* Seattle 5: College of Home Economics, State College of Washington. 1940. 42 pages. 25 cents. This handbook gives detailed instruction for two kinds of experiments—those that show the importance of the individual food groups and those that show the effect of poorly selected meals. It has been used by high-school students as the basis for several effective animal experiments.

Watch Them Grow. Chicago 6: National Dairy Council. 1944. 15 pages. 10 cents. Detailed instructions are given for planning and carrying out simple animal feeding demonstrations.

Wiford, E. J., and Sellers, Grady. *Killing, Cutting, and Curing Pork.* Circular 261. Lexington 29: Extension Division, College of Agriculture and Home Economics, University of Kentucky. 1941. 32 pages. Free. This bulletin describes the equipment necessary for the killing and curing of pork. Diagrams show details of hog-butchering equipment.

A Yardstick for School Lunches. (Nutrition Education Series, Pamphlet No. 4.) Washington, D. C.: Superintendent of Documents. U. S. Government Printing

Office. 30 pages. 15 cents. Appraisal forms and source materials for operation and management of the school-lunch program are given in this booklet; school and community participation and physical facilities necessary for an effective school-lunch program are also discussed.

PAMPHLETS FOR CLASSROOM USE

Agricultural Research Bulletins, publications of Swift and Co., Chicago, Ill., are written for use by pupils in the intermediate grades. Free.

No. 2 *Story of Meat*
No. 5 *About Wool*
No. 6 *Cattle By-products*
No. 8 *Food Values in the Diet*
No. 10 *Lamb By-products*
No. 12 *Soap*
No. 13 *Cuts of Meat*
No. 14 *Hog Production and Pork Consumption in the United States*
No. 15 *Cattle Production and Beef Consumption in the United States*

Babcock, C. J., *The Pasteurization of Milk.* Leaflet No. 117. Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office. 1939. 4 pages. Free. Information concerning the fact and the necessity of pasteurization of milk can be used by both students and adults.

Caton, Stanley. *Laying Flock Management.* Leaflet 93. Lexington 29: Extension Division, College of Agriculture and Home Economics, University of Kentucky. 1945. 6 pages. Free. This short summary of the care of laying flocks—housing, culling, and disease control—is an excellent quick reference.

Food Values in the Diet. Chicago: Food Nutrients, National Livestock and Meat Board, 407 S. Dearborn St. 8 pages. Free. Pictorial graph charts show the important sources of nutrients as well as the functions of each. The charts can be used in notebooks of background material on food sources and values.

Home Canning of Fruits and Vegetables. No. 9W1-93. Washington, D.C.: Bureau of Human Nutrition and Home Economics, U. S. Department of Agriculture. 1944. 16 pages. Free. Photographs are used to show the processes involved in canning fruits and vegetables by various methods.

How to Dehydrate at Home. Lexington, 29: Extension Division, College of Agriculture and Home Economics, University of Kentucky. This pamphlet outlines a procedure for dehydrating foods at home. A detailed diagram shows how to construct a home dehydrator.

National Food Guide. No. 91S-53. Washington, D.C.: Bureau of Human Nutrition and Home Economics, U. S. Department of Agriculture. 1946. 4 pages. Free. This guide includes an extensive list of foods in each of the seven basic food groups. It has been used and found valuable as a check list for both school and community food surveys.

A Nutrition Guide. Minneapolis 15: General Mills, Inc. 15 pages. Free. Not only are the seven basic foods described and their food values analyzed, but also meal patterns with servings for different kinds of work are given. The booklet is a valuable reference for both high-school and adult groups.

Our Daily Food and the Wheel of Good Eating. Chicago 14: American Institute of Baking, 1135 Fullerton Avenue. A booklet and wall chart give concise information about foods. They are useful in both elementary and high school.

Young, Isabel. *Help Make America Strong.* New York 17: Home Economics Department, American Can Co., 230 Park Ave. 1944. 19 pages. Free. Following a description of the seven basic foods and a listing of sources for each food group, there is an excellent chart—*A Guide to Common Can Sizes.*

CHARTS, MAPS, AND LEAFLETS

The Family Table. (Homemaking—Improved and Simplified, Chapter 2, Chart 2.) New York 13: Bureau of Educational Services, Bryon G. Moon Co., Inc., 401 Broadway. Photographs on one side of this chart show proper storage of food. On the reverse side, photographs show why canned foods keep. The chart can be used as a basis for discussions in science and home economics classes.

For Health—Eat Some Food From Each Group—Each Day. Washington, D.C.: U. S. Government Printing Office. 1943. This chart shows the seven basic foods. It can be used in making food surveys and planning meals.

Harris, C. E. *Poultry Calendar.* Lexington 29: Extension Division, College of Agriculture and Home Economics, University of Kentucky. 1945. 48 pages. Free. This calendar gives month-by-month suggestions for raising chickens. Several kinds of record sheets are included.

Menger, Sarah Merritt. *Nutrition Check-up Chart.* Madison: Wisconsin Alumni Research Foundation. 1943. 1 copy free; 3 cents for each additional copy. A list of nutritional values for common foods is accompanied by a blank, "Your Personal Nutrition Check-up Chart."

One Pound of Cheese. Chicago 90: Educational Department, Kraft Cheese Co., 500 Peshtigo Ct. Free. A picture chart shows the amount of milk fat, milk protein, milk calcium, and milk phosphorous in a pound of cheese.

Publications of The Davey Tree Expert Co., Kent, Ohio. Free.
The Selection of Street Trees
How to Choose Shade Trees for Planting
The Story of the Living Tree
How the Tree Grows
Diagram of Proper Planting, Pruning
These charts have been used by several school groups who have planted trees on their school grounds and at home.

Publications of the National Dairy Council, Chicago 6, Ill. 1943. Twenty-two cents each for 1 to 19 posters; 20 cents each for quantities of 20 to 100.
Calcium Equivalents
Protein Equivalents
Riboflavin Equivalents
These posters (19" x 25" in size) show the important food sources of protein, calcium, and riboflavin. A two-page supplement accompanies each of these three informative posters.

Publications of the National Dairy Council, Chicago 6, Ill. 1943.
A Guide to Good Eating (poster). 22 cents.

A Guide to Good Eating (leaflet). 4 pages. 2 cents.
Your "Guide"—How to Use It (booklet). 25 pages. 8 cents.

This set contains information about the seven basic food groups, adequate daily food servings, and the preparation and cooking of food. High-school classes find the material useful.

A Story of Sugar. Washington 5, D.C.: The United States Beet Sugar Association. A picture chart shows the steps in the process of refining beet sugar.

United States Food Sources. (Accompanied by a 43-page booklet.) New York: The Great Atlantic and Pacific Tea Co. 1932. Free. An artistically colored pictorial map shows the principal foods of each of the forty-eight states. The booklet gives the amount of each food grown in each state and compares that amount with the total production of that food in the United States.

BOOKLETS FOR CLASSROOM USE

About Bananas. New York: Educational Department, United Fruit Company, Pier 3, North River. 21 pages. Free. This booklet is written in the form of a textbook, giving information on the early history and descriptions of the planting, harvesting, and shipping of bananas. Questions to check understanding and a list of activities are included.

Beattie, J. H., and Beattie, W. R. *The Farm Garden.* Farmers' Bulletin No. 1673. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1942. 67 pages. 10 cents. The farm garden can be profitable. "A well-cared-for garden will yield a greater return per acre than any similar area on the farm devoted to regular farm crops."

Beattie, W. R. *Hotbeds and Coldframes.* Farmers' Bulletin No. 1743. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1942. 22 pages. 5 cents. This booklet gives detailed information on building and care of hotbeds and coldframes in the various regions of the United States. It can be used by both adult and high-school groups.

Bishop, F. C. *The Fowl Tick and How Premises May Be Freed From It.* Farmers' Bulletin No. 1070. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1941. 13 pages. 5 cents. Most students will find this bulletin too technical. It is, however, valuable teacher reference.

The Blue Goose Buying Guide for Fresh Fruits and Vegetables. Chicago 8: Advertising Department, American Fruit Growers, Inc., 1425 S. Racine Avenue. 48 pages. 25 cents. This booklet suggests better ways of buying, keeping, and preparing fresh fruits and vegetables.

Brooks, J. B. *Electrically Operated Water Systems for Farms.* Circular 319. Lexington 29: Extension Division, College of Agriculture and Home Economics, University of Kentucky. 1938. 31 pages. Free. This bulletin describes several types of water-supply systems. Diagrams are used with the text.

Bryan, A. Hugh; Hubbard, William F.; and Sherwood, Sidney F. *Production of Maple Sirup and Sugar.* Farmers' Bulletin No. 1366. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1937. 35 pages. 5 cents. This bulletin gives directions for collecting and handling the sap, for making maple sirup and sugar, and for handling and storing the finished products. It also con-

tains directions for caring for maple trees and for the planting of new maple trees.

Buckley, John S.; Bunyea, Hubert; and Cram, Eloise B. *Diseases and Parasites of Poultry.* Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1939. 68 pages. 10 cents. This bulletin gives the poultry owner information as "to the characteristics of various diseases and infestations in order that he may intelligently use the most approved methods of combating them."

Carpenter, Rowena Schmidt. *Milk for the Family.* Farmers' Bulletin No. 1705. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1939. 30 pages. 5 cents. This booklet contains excellent material on the nutritive value of milk, the various milk products, and the many ways in which milk and milk products can be used in the daily diet. It is a useful reference for students of all grades.

Caton, Stanley. *Good Eggs for Market.* Circular 349. Lexington 29: Extension Division, College of Agriculture, University of Kentucky. 1940. 11 pages. Free. This booklet describes the best methods to use in preparing eggs for market.

Cookin' Up Kitchen Dates. Minneapolis 2: Pillsbury Mills, Inc. 1945. 21 pages. Free. The style of this booklet is intended to interest young people in eating better balanced diets. Some recipes for party food are included.

Cooper, Martin R. *Getting Started in Farming.* Farmers' Bulletin No. 1961. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1944. 33 pages. This bulletin is intended to help the prospective buyer or renter decide where he wants to farm, how to select a farm, and how to get started in farming.

Darrow, George M. *Blackberry Growing.* Farmers' Bulletin No. 1399. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1938. 16 pages. 5 cents. In this bulletin, directions are given for propagating, planting, cultivating, pruning, and training blackberries. The characteristics of the principal varieties are described.

Darrow, George M., and Waldo, George F. *Raspberry Culture.* Farmers' Bulletin No. 887. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1942. 41 pages. 5 cents. This bulletin furnishes information on the best methods of raspberry culture and particularly considers practices that differ from those used with other bush fruits.

Decker, S. W. *Flower Gardening for the Beginner.* Bulletin No. 8. Champaign: Extension Service in Agriculture and Home Economics. University of Illinois. 1940. 11 pages. Free. The location of a flower garden, the preparation of the soil, and the planting of the garden are the chief topics discussed in this readable bulletin.

Department of Research, Household Finance Corporation, 919 North Michigan Avenue, Chicago 11, Illinois, 1946. Complete set of 4 volumes, $1.75. Any one volume, $.50 Separate booklet (per copy), 5 cents.

Money Management Library—Better Buymanship—Use and Care.

Vol. 1. *Planning Expenditures*

Money Management for the Family
The Budget Calendar
Children's Allowances
Better Buymanship Principles

The Health Dollar
Life Insurance
Credit for Consumers
Credit Cost Calculator

Vol. 2. *Food*
The Food Dollar
Poultry and Eggs
Fresh Fruits and Vegetables
Meat
Fish
Dairy Products
Food, Fats, and Oils
Dinnerware
Kitchen Utensils

Vol. 3 *Clothing*
The Clothing Dollar
Fabrics
Hosiery
Shoes
Furs
Cosmetics
Soap and Other Cleansing Agents

Vol. 4. *The Home*
Time Management
The Rental Dollar
Home Heating
Home Furnishings
Furniture
Household Textiles
Floor Coverings
Household Equipment
Playthings

Each booklet gives specific information that will help the consumer get good quality or efficient service for his money. Although written primarily for adult and college groups, these booklets can be used as references in a program of consumsr education in high schools.

Electric Light for the Farmstead. Farmers' Bulletin No. 1838. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1940. 58 pages. 10 cents. This bulletin gives directions for installing electric lights in the farm house and other farm buildings. Characteristics of good lighting are emphasized.

Etchells, John L., and Jones, Ivan D. *Preservation of Vegetables by Salting or Brining.* Farmers' Bulletin No. 1932. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1944. 16 pages. 5 cents. Photographs and detailed instructions make this bulletin a practical reference on one type of food preservation.

Evans, Eva Knox. *Let's Cook Lunch.* Carrollton: Publication Committee, West Georgia College. 1944. 46 pages. 15 cents. This is an appealing story for children in the intermediate grades. It tells how to set up a hot-lunch program in a one-room school.

Gould, H. P. *Growing Fruit for Home Use.* Farmers' Bulletin No. 1001. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1935. 36 pages. 5 cents. This bulletin aims to furnish in concise form information that will be of practical help to the beginner in fruit growing. Lists of desirable varieties of apples, pears, peaches, plums, cherries, grapes, and berries are given for the different parts of the country.

Gould, H. P. *Growing Peaches: Sites and Cultural Methods.* Farmers' Bulletin No. 917. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1933. 30 pages. 5 cents. This bulletin discusses "the basic operations of planting, tilling, maintaining soil fertility, and pruning" of peach trees.

Guthrie, Maude. *Home Canning, Preserving and Pickling.* Knoxville: Agricultural Extension Service, University of Tennessee. 1944. 56 pages. Free. Canning equipment is described, and recipes for canning and preserving are given.

Henderson, G. E., and Roberts, J. A. *Pumps and Plumbing for the Farmstead.* Knoxville: Educational Section, Tennessee Valley Authority. 1940. 140 pages. 50 cents. This handbook deals with such problems as the best use of the water supply, plumbing, sewage disposal, and bathroom planning.

High School Manual on Commercially Canned Foods. New York: Home Economics Section, American Can Co., 230 Park Ave. 1945. 45 pages. Free. This is a useful reference which explains how tin cans are made, describes modern commercial canning methods, and plans a balanced diet of canned foods.

How to Get the Most Out of the Food You Buy. Bridgeport, Conn.: General Electric Consumers Institute. 22 pages. 3 cents. Information concerning the buying, storing, and cooking of foods necessary for a well-balanced diet make this booklet a useful reference for a program in consumer education.

Insects Injurious to Deciduous Shade Trees and Their Control. Farmers' Bulletin No. 1169. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1933. 100 pages. 10 cents. This bulletin discusses the more important insects affecting deciduous shade trees in the eastern two thirds of the United States and gives the remedies for them.

Johnson, E. R., and Lee, A. R. *Business Records for Poultry Keepers.* Farmers' Bulletin No. 1614. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1946. 19 pages Free. This bulletin contains a variety of forms used by experienced poultry men.

Kelley, J. B. *Home Storage Structures and Equipment.* Circular No. 266. Lexington, 29: Extension Division, College of Agriculture and Home Economics, University of Kentucky. 1939. 16 pages. Free. The directions and diagrams for building different types of storage structures will be helpful to students and their parents in the construction of storage structures in a rural community.

Kelley, J. B., and Insko, W. M., Jr. *Housing Farm Poultry.* Circular 351. Lexington 29: Extension Division, College of Agriculture and Home Economics, University of Kentucky. 1940. 31 pages. Free. A list of plans for poultry houses and equip-

ment is included in this booklet with directions and diagrams for building a chicken house.

Magness, J. R. *Establishing and Managing Young Apple Orchards.* Farmers' Bulletin No. 1897. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1942. 29 pages. 10 cents. This bulletin deals with the selection of sites for the apple orchard, the planning and planting of the orchard, and soil management and pruning practices for trees up to bearing age.

Make the Farm Feed the Family. Lexington 29: Extension Division, College of Agriculture and Home Economics, University of Kentucky. 1940. 19 pages. Free. Almost any farm can, with wise management, provide enough food from each of the seven basic food groups to meet the needs of the family living on the farm.

Meat Manual—Identification, Buying, Cooking. Chicago 5: Department of Home Economics and Meat Merchandising, National Live Stock and Meat Board, 407 S. Dearborn Street. 1945. 40 pages. Free. This booklet is an excellent guide for meat identification, buying, and cooking. There are photographs, diagrams, and charts that can be used for quick reference.

Mickey, Karl B. *Health from the Ground Up.* Chicago 1: Public Relations Department, International Harvester Co., 180 North Michigan Avenue. 1946. 125 pages. Free. This book attempts to trace the relationship between the soil and human health. It deals primarily with the influence of soil characteristics on the individual.

Morse, W. J. *Soybean Utilization.* Farmers' Bulletin No. 1617. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1932. 27 pages. 5 cents. This booklet lists a large number of uses for soybeans. A description of the many uses of soybeans by Orientals will be interesting to most readers.

Pack a Lunch That Packs a Punch. Bridgeport, Conn.: General Electric Consumers Institute. 8 pages. 2 cents. Means and suggestions for planning and packing attractive lunches make this leaflet a useful guide to "lunches with a punch."

Phelan, Vincent B. *Care and Repair of the House.* Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1931. 121 pages. 20 cents. This book gives directions for dealing with many home problems such as leaking faucets, leaking roofs, and doors that stick or sag.

Potts, C. H., and Simmons, V. L. *Milk Goats.* Farmers' Bulletin No. 920. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1942. 35 pages. 5 cents. This bulletin describes the breeds and types of goats, and tells how they should be fed and managed in a dairy.

Publications of the Consumers Institute, General Electric Co., Bridgeport, Conn.
Frozen Foods. 23 pages. Free.
Home Canning Made Easy. 1 page. Free.
How to Store Perishable Foods. 4 pages. 1 cent each.
Each of these bulletins has explicit directions and concise tables on its subject.

Publications of the Engineering Department, General Electric Co., Nela Park, Cleveland, Ohio. The first booklet listed below tells the story of lighting in relation to problems of modern living. It also describes the lighting used by earlier peoples. The second publication is an outlined chart.

The New Story of Light. 1940. 30 pages. Free.
Pictorial Summary of Light (Chart) 15 cents.

Quaintance, A. L., and Baker, A. C. *Control of Aphids Injurious to Orchard Fruits, Currant, Gooseberry, and Grape.* Farmers' Bulletin No. 1128. Washington, D.C.: Superintendent of Documents, U. S. Government Printing Office. 1926. 34 pages. 5 cents. This bulletin describes the many species of aphids that attack fruit trees and suggests remedial treatments.

Quinn, J. P. *Selecting Hens for Egg Production.* Farmers' Bulletin No. 1727. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1944. 14 pages. 5 cents. The feeding and management of hens as well as the criteria for selecting good layers are discussed in this bulletin.

Sherman, W. C., and Albrecht, H. R. *Edible Soybeans.* Bulletin 255. Auburn: Agricultural Experiment Station, Alabama Polytechnic Institute, 1942. 16 pages. Free. Information about yields, date of maturity, nutritive value, and palatability of soybeans is reported in this bulletin.

The Silver Wedge: The Sugar Beet in the United States. Washington 5, D. C.: United States Beet Sugar Association. 1944. 63 pages. Free. This well-illustrated booklet gives a detailed account of the beet sugar industry—its history, the planting of the beets, their cultivation, and the processes used in refining beets.

Slocum, Robert R. *Marketing Poultry.* Farmers' Bulletin No. 1377. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1943. 40 pages. 10 cents. This booklet describes the best ways of preparing chickens for market and discusses commercial methods of preparing chickens for sale.

The Story of Beet Sugar from the Seed to the Sack. Saginaw, Michigan: Farmers and Manufacturers Beet Sugar Association. 1946. 13 pages. Free. A pamphlet and a chart tell the story. The history of the industry and the steps in sugar production are emphasized in the material.

The Story of California Oranges and Lemons. Los Angeles: Educational Division, California Fruit Growers Exchange, Sunkist Bldg. 1943. 30 pages. Free. From the first plantings to the final marketing of the fruit, the story is told in a simple concise manner.

Swank, Edith Elliott. *The Story of Food Preservation.* Atlantic City, N. J.: H. J. Heinz Co. 1943. 96 pages. 25 cents. Chapter II presents a historical account called "How We Store Foods."

Todhunter, E. Niege. *Nutrition for School Children.* Tuscaloosa: Extension Division, University of Alabama. 1945. 57 pages. 25 cents. Suggestions for starting a school nutrition program, activities, and teaching suggestions are some of the practical helps available in this bulletin.

Toggart, W. H., and Simon, E. C. *A Brief Discussion of the History of Sugar Cane.* Baton Rouge: The Louisiana State Department of Agriculture and Immigration. 1945. 20 pages. Free. The culture, breeding, harvesting, manufacture, and products of sugar cane are described in this booklet. A brief history of sugar cane in Louisiana is included.

Tressler, Donald K. *Quick Freezing of Fruits and Vegetables.* Bridgeport, Conn.: General Electric Consumers Institute. 1944. 11 pages. Free. This booklet describes the

varieties of fruits and vegetables which can be successfully preserved by freezing. Charts show the best methods for preparing the fruits and vegetables for freezing.

White, W. H., and Doolittle, S. P. *A Vegetable Gardener's Handbook on Insects and Diseases.* Miscellaneous Publication No. 605. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1946. 30 pages. Free. Harmful insects and diseases are described in enough detail to help the gardener identify them. Directions are given for making insecticides and fungicides for garden-pest control.

White, William. *Making and Storing Farm Butter for Home Use.* Farmers' Bulletin No. 1979. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1946. 16 pages. Free. Directions for preparing cream, churning, and storing butter are definite and detailed.

Wilson, H. L. *Making American Cheese on the Farm for Home Consumption.* Farmers' Bulletin No. 1734. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office, 1941. 17 pages. 5 cents. The directions for making cheese given in this bulletin can be used with the simple equipment that would be available on most farms.

Woodward, T. E.; Dawson, J. R.; and Miller, F. W. *Care and Management of Dairy Cows.* Farmers' Bulletin No. 1470. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1941. 40 pages. 5 cents. This bulletin describes practices in the care and management of dairy cows which practical experience as well as scientific investigations have shown to be successful.

Yerkes, Guy E. *Propagation of Trees and Shrubs.* Farmers' Bulletin No. 1567. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. 1940. 52 pages. 5 cents. In this bulletin practical details concerning the care and handling of tree seeds, the culture of seedlings, the successive steps in the handling of cuttings, layers, grafts, and buds are presented.

Young, Paul R. *Advanced Garden Graphs.* Darien, Conn.: Educational Publishing Corporation. 1944. 48 pages. 50 cents. This booklet follows another text, *Elementary Garden Graphs,* and considers the broader aspects of gardening for home and community improvement. It is accompanied by a teachers' manual.

ACT EARLY

Members: If you wish your name to be included in the NEW directory of the National Association of Secondary-School Principals, to be prepared next fall, send us your change of position and address promptly. Please include your old address as well as your new address and the title of your new position.

In order to receive the first issue of the next school year promptly (the October issue of THE BULLETIN), it will be necessary to receive all changes of address not later than September 10. Otherwise, the October issue will be mailed to your old address.

Bringing Consumer Education into Action

To The Principal

THIS is not an article about consumer education. It is a plan of action by which you and your staff can speedily analyze your needs and blueprint a sound working program. It is based upon *Consumer Education in Your School,* a Handbook for Teachers and Administrators, published by the Consumer Education Study, price 60 cents a copy.

Thomas H. Briggs, *Director*
The Consumer Education Study

Overview of the Plan

ABOUT initiating a consumer education program—or re-examining an existing program to upbuild it—there are two things we know with unquestioning sureness.

* That the truly good program can only be built with the participation of the whole staff. Consumer education is too big, too varied for any one course or department to hold it all.
* That the truly good program can only be built with one eye on *your* school and *your* community. They have their peculiar needs and problems; and—far more important—they can give you their peculiar resources and advantages for the job.

But—we also know that the staff members are busy, that they have many concerns, that a long-drawn-out study of consumer education, desirable as it may be, is probably impossible.

THEREFORE, we have systematized this time-saving approach, using the whole staff, sacrificing nothing of local application, based upon a brief handbook built for this very purpose by the Consumer Education Study—a handbook that brings you the best in consumer education from everywhere. The title of the booklet is *Consumer Education in Your School.* (We'll simply call it the "Handbook" from here on.)

* It is the only book focused sharply on the biggest problem a school faces—how to lay out the total consumer education program and square it up with the rest of the curriculum.
* It is a practical, how-to-do-it book. It contains enough philosophy to give true perspective, but moves fast into action specifics. Left out from the start was the good-in-theory, impossible-in-practice stuff which teachers distrust.
* It was purposely built to implement a series of staff meetings, following a line of attack that has already been proved sound among various staff groups.
* It paves the way to a dynamic program of school-and-community cooperation.

PROCEDURE

1. Plan a series of five meetings. Many more could be used, of course, but this will give a good foundation for decisions.
2. Divide the staff into committees, one responsible for each meeting. If at all possible, have some lay members on each committee. On many of the practical matters so essential to consumer education, certain community members have a kind of knowledge and experience teachers can rarely supply. They can help tremendously in sound planning; and, having done so, they can and will offer great resources in carrying out the plan. To do consumer education well, you are going to need more than textbooks.
3. Decide how far you wish each committee to go. The minimum is simply to study the *Handbook* and size up the local situation on a common-sense basis. Beyond this, there are possibilities of community surveys, continuing liaison work with the community, periodic evaluation and revision, *etc.* They are all wonderfully worth while. But, if time permits only a quick analysis and the formulation of proposals, do that well and rest assured that yo uare on sound ground.
4. Turn to the following sections for specific suggestions.

First Problem

COMMITTEE ON TARGETS

Resisting the urge to start by worrying about organization and administrative machinery, let's simply find out: ***What are the problems we're trying to solve? What is the nature of our job?***

COMMITTEE ASSIGNMENT

* To survey the needs which must be met.
* To agree upon a basic philosophy.
* To map out the goals.

SOURCES OF INFORMATION

The Handbook, Part I

The Community

Anything peculiar or distinctive here—good or bad—in the consumer habits of the children? of the adults?

Any special consumer problems—or advantages—arising out of the local occupations, income levels, climate, population characteristics?

What do the parents and other thoughtful adults wish their youngsters to be taught?

What do the young folks themselves think they should learn?

Notes on Method—If time is short, the committee may simply have to size up the situation, make a horseback guess. But it can learn far more—and build public understanding and support—if it will

* Secure lay help; experienced men and women are expert consultants on consumer affairs.
* Work out a questionnaire that will let parents voice their views.
* Solicit student views directly; enlist their help in making an inventory of their spending and other consumer activities.

TESTS OF THE COMMITTEE'S WORK

Does the whole staff know what the school is trying to do—and why?

Even though the details are still to come, ***do we all have the same general sense of direction?***

Has the community been enabled to share the understanding of need and the feeling of purpose?

Second Problem

SELF-SURVEY COMMITTEE

Listing the objectives of consumer education always makes it seem that a heavy, new load is being thrown upon the

school. Actually, in any good school, a large part of the indicated work has been going on for a long time. A quick inventory of this consumer education which is already in action uncovers a foundation to build upon, prevents wasteful duplication, and gives a guide to next steps. Besides, it helps teachers and patrons who may be concerned over "radical" curricular change to see that it will chiefly be an extension or co-ordination of elements they now like very well.

COMMITTEE ASSIGNMENT

* To inventory what is already going on which *is* good consumer education, even though not so named.
* To chart which students each element reaches or fails to reach.

SOURCES OF INFORMATION

The Handbook, Part II

The School Staff and Courses of Study

In each department, class, or school activity, what consumer-educating subject matter or activities stand out? (No need for exhaustive detail—just sketch the broad outlines. If people wish to talk also about what could easily be added by slight adaptations, so much the better.)

What do these several "pieces" add up to? Which objectives are already fully or fairly well met? Which ones need speedy attention most?

Who gets what? Do all the "pieces" reach all the students? If not, what is the present pattern of consumer education for each major student group?

Notes on Method—This exploration often helps both teachers and laymen understand what consumer education means, better than any abstract statement of objectives can. Many times it clinches the objectives themselves. Besides, it stirs up creative imagination as to next steps and generates a warm feeling of familiarity and of self-identification with an ongoing program. So encourage every teacher, every department to make an independent inventory. Find out from alumni—and even from present students—wherein your program has served them best, or worst, as consumers.

TESTS OF THE COMMITTEE'S WORK

Does everybody see now that consumer education isn't so "different" after all—that it has long been a part of all good education?

Does every staff member identify himself better with the program, seeing how he contributes to it?

Are the lay members seeing things on which they could help?

In the listing of existing practices, have ideas for new ones bubbled up?

Third Problem

COMMITTEE ON "INFILTRATION"

Whether or not your school introduces a special course, it can have a really good consumer education program only if appropriate additions come from almost every part of the curriculum. The trick is not merely to infiltrate into every department, but also to find exactly the right job for everybody.

COMMITTEE ASSIGNMENT

* To find the distinctive contribution each department, course, or activity can make most naturally and most easily—and with greatest profit to itself.
* To propose a general allocation of consumer education subject matter to the several subject fields, one that will achieve a well-rounded program (so far as this is possible through "incidental" teachings alone) without undue duplication.

SOURCES OF INFORMATION

The Handbook, Part III, pages 54 to 81 (Many relevant ideas also in Parts II and IV)

Other Staff Members, Curriculum Committees, Department Heads

What parts of consumer education may well be carried on in each of the existing subjects?

What part can the school activities play?

What ideas do laymen, graduates, and present students have for making existing school subjects more functional as consumer education?

Notes on Method—This committee has a large and serious assignment. It can use no substitute for consulting every department concerned. The goal is not to find out how much each department can do—but to select the very best of many possibilities. First, find the distinctive things which each course can do to strengthen consumer education; then eliminate whatever does not also strengthen the course itself. (The question isn't wholly, for instance, what science can do for consumer education, but also what consumer education can do for science.) Next, "cut and

try" until you can fit the pieces together into a well-rounded program, remembering that it is each individual student's program—not simply what *in toto* is offered in the whole school—that counts.

TESTS OF THE COMMITTEE'S WORK

Does the staff begin to see a pattern emerging?

Has everyone a growing feeling of having a unique contribution to make?

Are the members of each department keen for things they are going to do—rather than merely generous to lend a hand to something alien to their own work?

Do the lay members see how adding consumer education elements to various subjects will bring them closer to real life? Do they recognize the resources they can offer and feel keen to do so?

Is there some awareness of needs still to be met?

Fourth Problem

COMMITTEE ON SPECIAL INSTRUCTION

Total up the consumer education found already going on in the school; add in all the newly planned "incidental" teachings. Then look back to the total job laid out at the first meetings. The chances are that some parts of that job can be accomplished only by providing for special instruction.

COMMITTEE ASSIGNMENT

* To identify what still remains to be done, using the original objectives as a reference point.
* To propose a plan for the best organization and placement of whatever special instruction may be needed.

SOURCES OF INFORMATION

The Handbook, Part III, pages 41 to 54

The Present Curriculum and the Staff

What essential needs in consumer education are left untreated or inadequately treated by the measures planned under problems two and three?

If these needs must be met by special instruction, is the best answer a semester's or a year's course? If so, what should be its nature and content? Where should it be placed, both as to grade level and as to department?

Could the need for special instruction be met—wholly or in part—by units or blocks of units specifically called consumer education, but placed within existing courses? If so, what units in what courses?

Would this be a better, or poorer, solution than a course? Should some such units be introduced even if there is to be a special consumer course?

If units within existing courses are placed as recommended, what students will be reached by each? If a whole course is introduced, should it be elective or required? The fundamental question is, How can the offerings be made to reach the largest number of students?"

TESTS OF THE COMMITTEE'S WORK

Can the staff chart now what consumer education will be got by *every* students, through the combination of special and "incidental" instruction?

Do both teachers and lay members sense that the new jobs can be done well only by using community resources—resources in persons as well as things?

How many persons now see the whole, integrated program—the distinctive "pieces" coming together from all sides, centering around the core of specialized instruction?

How is the balance between the incidental and the special instruction?

Fifth Problem

COMMITTEE ON METHODS AND MATERIALS

Educating young consumers calls for much beyond "canned" textbooks and stereotyped academic procedures, because it stems largely from up-to-the-minute, practical matters and local affairs. That's fun for the specialist—for any good teacher. But unless the school develops some way of helping him, it means work for the teacher who is not a specialist in consumer education and can't give it much time.

COMMITTEE ASSIGNMENT

* To develop recommendations for reasonably uniform ways of teaching consumer matters.
* To build a system for the steady acquisition and dissemination to the staff of good ideas and materials.
* To plan toward effective use of community resources.

SOURCES OF INFORMATION

The Handbook, Parts IV and V

The School Library and Community Resources

What instructional materials for consumer education are already available? Where? Do staff members know about them and have easy access to them?

What added materials should be acquired? How can the staff co-ordinate its efforts to keep abreast of new ideas and materials without undue consumption of time? Should someone on the staff be given special responsibilities for taking the lead? If so, who?

What resources for consumer teachings are there in the community? Material resources? Human resources? How can the school make systematic use of them and gain public support in the process? Does this phase of the program need someone responsible as a co-ordinator?

Notes on Method—This committee can stop with proposals for getting and organizing conventional materials. Or—with the help of lay members—it can work out a system that will enable every teacher to use the most suitable materials (not merely printed ones) and the best resources of the community. A real vision of the nature of the vivid, down-to-earth teaching that must go into consumer education is of the essence. But so is realistic attention to such questions as how to get community support, how to find time.

TESTS OF THE COMMITTEE'S WORK

Does it appear that community resources will be used in a balanced, sensible way?

Do staff members see that consumer teaching is something "beyond" the textbook?

Do teachers feel that they are going to be able to get and use the best materials without an extravagant use of their own time and energy?

Are lay members offering material resources and their own help?

In Conclusion

Consumer education is still a pretty new "subject." The answers to many questions as to best methods and organization are not in yet—will not be for a long time. Well, "There's more than one way to skin a cat." Sound, successful programs, organized in a variety of ways, are operating with enthusiastic, all-round support in many communities.

Having gone through the five study-and-planning stages sketched above, you may move ahead with confidence.

Implementing Secondary Education for Home and Family Living

GRACE E. HENDERSON

FORTUNATELY, in a democratic society, we can speak together of our ideas and hopes for the future; we are not confined to discussion of an approved course of study. What I suggest are hypotheses, ones which have been tried and found satisfactory in many places, but which are nevertheless offered only as hypotheses, worthy of consideration and trial. I should like to propose, first, eight beliefs concerning the *character* of education for home and family life and, second, four ways the secondary schools can, and in many cases do, implement such instruction.

CHARACTERISTICS OF EDUCATION FOR HOME AND FAMILY LIFE

1. *Education for Home and Family Life*

Is of *primary importance* in the development of a nation and a world, because the individual's experiences in family and home living probably are more effective in molding his character than any other experience of his lifetime. This hardly needs elaboration. Home experience not only extends throughout the full *length* of life, but it also includes those keen joys and deep sorrows which are charged with tremendous educative potentialities.

2. *Education for Home and Family Life*

Needs to be *life-long* and for *both sexes*. Because of the wide range of experiences in home living and because of their complicated nature, they remain a challenging opportunity for learning *throughout* life. Neither men nor women seem to have been born with skills already developed as father, mother, buyer, house planner, and the like.

Grace E. Henderson is Director of Home Economics, Pennsylvania State College, State College, Pennsylvania. Dr. Henderson presented this paper last fall at the Annual Convention of the Pennsylvania Branch of the National Association of Secondary-School Principals held at Harrisburg, Pennsylvania.

3. *Education for Home and Family Life*

Needs to concern itself with the *whole of home and family experience,* not simply with a few parts of it such as consumer economics, sex education, or cooking. Education for home and family living includes these three and more. *Its scope is defined by the activities, appreciations,* and *decisions commonly required in setting up and carrying forward home and family life.* This comprehensive area of living calls for competence:

a. In caring for babies and children; in guiding their physical, emotional, and mental development.
b. In living together constructively in family groups and in larger, more varied groups; in joining hands with other families to solve mutual problems and to formulate judgments about social issues.
c. In providing health-giving food and shelter and satisfactory care in illness.
d. In recognizing and using effectively, to achieve family and social goals, the resources that are available to the family: money, talents of family members, space, time, and the like.
e. In producing or conserving beauty in the surrounding out-of-doors and indoors where the family lives, and in the family's clothing.
f. In locating or planning a living place and its furnishings and equipment.
g. In re-evaluating continually what is worth while.
h. In providing educative experiences for family members, particularly those which develop thinking, co-operating individuals.

These competencies, of course, do not consist simply in performing these tasks *alone, for* one's family, but rather in co-operating with other members and other families to discover and then to achieve commonly desired ends. This may seem a tremendous order! But family life is inherently comprehensive in scope; hence, education for it must also be.

4. *More Than Being Comprehensive, Education for Home and Family Living*

Needs also to be *integrative of the whole* rather than a series of specializations in particular homemaking problems. A series of unrelated courses covering all of the foregoing—*consumer economics, human nutrition, house furnishings, marriage, child guidance,* and the like—do not necessarily constitute a good education for home and family living. Problems of beauty (art) do not exist in homes apart from problems of economics and finance,

nor apart from family relationships. And problems of child guidance do not exist apart from those of food and housing. These are all interdependent and *their interdependence needs to be taught.* It was this concept of the interrelatedness of home and family problems that brought home economics into being in the latter part of the nineteenth century.

5. *Education for Home and Family Living*

Encompasses and is rooted in the subject matter of the physical and biological sciences, the social sciences, psychology and philosophy, and art. Its uniqueness lies in their *integration* in relation to home and family living. Here, if ever, philosophy and science merge. It is clear, then, home economics, though concerned with the whole of education for home and family living, does not stake out the whole for itself only. On the contrary, it was precisely because so many subjects had important contributions to make that the *integrating subject of home economics* was needed in the beginning and is still needed. Segregated courses in *art,* in *economics,* in *physics,* even with "practical applications" to many aspects of home life, do not constitute a good education for home and family living. To this day, the unique contribution of the home economist should be *to lead* in *co-operative efforts among economists, chemists, artists, psychologists, sociologists, and the like toward the solution of actual home problems* in association as they exist in family situations.

But whether it is the home economist or someone else in a given community who leads in the integration of all their efforts, each will bemore effective in family improvement if closely associated with the others than if his work develops and remains as an isolated specialty.

6. *Education for Home and Family Living*

Needs to be focused upon the development of habits and customs, that is, upon *action,* as much as upon knowledge of facts and the understanding of principles. Many discussions, much preachment, scores of theories and scientific conclusions do not constitute a satisfactory education for home and family living. Here truly there is no teaching unless there is learning, and but little learning unless there is action.

7. *Education for Home and Family Living*

Is the concern of the church, the Parent-Teacher Association, the Scouts, the extension services of colleges, the secondary schools, the elementary schools, and the family itself. The responsibility for this part of the edu-

cational program needs to be shared co-operatively with other agencies, each initiating and collaborating.

8. *Education for Home and Family Living*

Needs to be guided always by the over-all *ideal* of a family situation which contributes most to the developing capacities of its members to live in a mutual and free society. This ideal of family welfare sometimes finds itself in conflict with the welfare of vested and powerful agencies.

IMPLEMENTING SUCH INSTRUCTION

What can the secondary school *do* to implement instruction in home and family living *if* that instruction is believed to be, as outlined above, tremendously important; needed throughout life and for both sexes; concerned with *all* aspects of family living in interrelationship; aimed for *action; guided* by principles of science, art, social science, philosophy, psychology, and by an ideal of family welfare; and the concern of many different community agencies? Those in charge of and participating in secondary education, *who believe these things, will find many different ways* to implement such a program, *if* they are given opportunity to *suggest* and to *try* their suggestions. With this faith, I would like to suggest *four* procedures which have been used effectively in some places.

1. School people have assumed the initiative in bringing together the community's professional and lay leaders who are concerned about education for home and family living—young and old, teachers, officers of community groups and those who are not officers, and representatives of minorities as well as majorities. They came together to discuss not "what we are now doing," but rather

a. What *needs* to be done in education for home and family living for *adults* and *youth* in this community.
b. What our combined resources are doing for the job; which resources might be shared.
c. Where the gaps in our combined efforts are; what groups are not being reached; what phases of family life are not touched.
d. What we can recommend to our several agencies.

2. Following such planning, some secondary schools have arranged a program of study for their teachers and administrators and for elementary teachers so that all might expand and improve the quality of their teaching, giving emphasis to good home and family living. Such teacher-study has been led by

a. Persons in the school or community especially trained and now employed there or now making a home there.
b. Faculty or students from a nearby college.
c. Advisers or representatives from the county offices of schools and of the extension services.

3. Other schools have simply increased the number of elective courses and located them favorably in the time schedule so that large numbers of boys and girls could enroll for one or all of such full semester offerings as the following:

a. Child development and family relationships. (Sometimes entitled marriage, courtship, or sex education.)
b. Home management: recognizing family and social values, resources, and limitations, and finding and trying alternate ways of achieving them. (Sometimes called family economics or consumer economics.)
c. Housing, furnishing, home equipment, and out-of-door plantings.
d. Family health: home nursing, nutrition, and sanitation.
e. Clothing selection, buying, care, and construction.
f. Food preparation, preservation, storage, freezing, and serving.

The provision of such additional elective courses is sometimes accompanied by a reduction in the specific courses required for graduation, and by co-operative efforts among teachers to interrelate their teachings.

4. In still other schools a committee of teachers, whose training and interest prepared them best, has been appointed to plan and conduct a required core, a part of which is devoted to education for home and family living.

a. Such a core sometimes extends throughout a *year,* five periods each week, during the tenth grade if there are many early drop outs and during the eleventh or twelfth grade if a large portion of students remained to be graduated. Or it is distributed through three years —preferably blocked with other courses for concentrated study during certain weeks.
b. Time is found by lengthening the day, shortening the periods, or reporting the core or parts of it as required subjects if time must be taken from the regularly scheduled required courses.
c. The committee consists of interested teachers drawn from those trained in science, social studies, art, and home economics. Interested students are sometimes members of the core planning committee. If we in the colleges have done our jobs well, the home economics

teacher is able to lead in integrating the contributions of others in such a core. But, of course, not all home economics graduates will be prepared to do that.

d. Committee members do not need to do all the teaching themselves. For, not all teachers, regardless of their training, are equally well equipped to deal functionally with such problems as child development, family economics, food preparation, home nursing, clothing construction, sex, nutrition, house furnishings, consumer economics, and social issues in which families have responsibility. They enlist the services of other teachers and other men and women who are trained and now living in the community. These may be paid or they may give their services gratis.

e. The Committee works with all teachers to relate to the core the work in other classes.

f. Methods in the core include trips to the homes of families who have worked effectively toward a constructive family life or who are experimenting with particular problems. Opportunities to work often with young children and to use laboratories as freely as libraries also supplement the core.

SUMMARY

In summary, secondary schools have implemented the kind of education for home and family life they believed desirable

1. By taking initiative in calling together their community lay and professional leaders who are concerned to plan community-wide programs.
2. By arranging programs of study for teachers for the purpose of increasing the amount and quality of education for home and family life included in other courses.
3. By expanding the number of available elective courses which deal directly with aspects of home and family living.
4. By appointing a committee of qualified teachers to develop a required core which includes education for home and family life.

In other schools where the importance of home and family life to the nation as well as to individuals is recognized, other ways will be found to implement a universal, life-long educational program through all agencies aimed toward family welfare. Always they will be comprehensive and integrative in nature, grounded in fundamental principles, and effective in ac-

tion within family groups and in relation to the kind of society we are trying to develop.

MORE WELL-PREPARED TEACHERS ARE REQUIRED

If the foregoing program were undertaken seriously in many communities, additional teachers whose preparation is in home and family living would be essential. If school men are serious in this matter, they will recruit promising high-school young people to prepare in college for this job.

Other agencies which serve families have multiplied their demands many times for young people with this training. Industry, technological laboratories, food service institutions, and social and educational agencies other than schools are employing graduates who formerly were available to schools. Additional young people must prepare for this service if the schools are to function as here proposed. None are in a more favorable position for this recruiting than the community's leaders of high-school-age youth; namely, the men and women teachers of the secondary school. .

A New World Aviation Annual

A DREAM to sponsor the first authentic statistical and historical compilation of the firms which make up domestic and international aviation will come true in June when the Aviation Research Institute publishes the *1948 World Aviation Annual.* The dream was originally conceived by Dr. J. Parker Zandt more than ten years ago while he was serving as consultant to the Civil Aeronautics Board.

Dr. Van Zandt based his dream upon the hypothesis that the future of the United States was inseparably linked with the international development and control of aviation as an instrument of war and of commerce. He believed that a more complete understanding of the economics of world aviation as they applied to individual aviation businesses throughout the world was essential to an orderly program in which aviation may prove to be a great unifier and integrator—politically, socially, and economically.

For almost a decade Dr. Van Zandt elaborated upon his idea for a compendium of the businesses in aviation. The Aviation Research Institute, a nonprofit scientific and educational organization, of which Dr. Van Zandt is President, was founded in 1947 and the publication of the *World Aviation Annual* was set as its immediate objective. For more than a year, experienced, competent researchers have been working to edit and compile statistical and historical data of businesses in aviation throughout the world so that the *Annual* will be the first research manual of domestic and international aviation. Dr. Van Zandt, as editor of the *Annual,* has also had the generous co-operation of government agencies, air carriers, individuals, and air crafts and parts manufacturers throughout the world.

The prepublication price, payable in advance, is $12.50, plus 30 cents postage, for a single order—representing a saving of $5 on the list price of $17.50. For 3 to 9 copies, the prepublication price is $12 per copy. Postage is prepaid on volume orders. Send all orders to Aviation Research Institute, 1317 F St., N. W. Washington 4, D. C.

Holding Your Teachers

N. H. PEPPER

THE problem of holding our teachers has been one of many generations. Many men and women more brilliant than the writer have attempted to give people the answer. This article is not a solution but a discussion of points that could lead to a solution if one were brave enough to fight for it. Every day we pick up our paper, magazine, or book and read about the shortage of teachers in certain communities and the poor quality of teaching in other communities.

Holding your teachers is not only the educators' problems; it is a problem for the parents, the general public, the civic and state officials, the school boards, the superintendents of schools, the principals, and last, but not least, the teachers themselves. The writer intends to break down this problem into three large headings: Need for attracting teachers; Getting teachers; and Holding teachers.

NEED FOR ATTRACTING TEACHERS

In a society and way of life in which we live today, the greatest medium for spreading our doctrine of clear thinking and thinking for ourselves is in and through our schools. Let us look at other countries if we like to copy others and see the elevated position in which they place education. One of Hitler's first acts was to do away with all teachers and books which did not follow his line of thinking. Mussolini did the same thing. Today, in a country much closer to us, Argentina has put the entire educational system under a man who thinks as the President thinks. It is an unquestionable truth that one of the foundations of our democratic thinking is our form of education. Our school system is the cornerstone of our democracy. Therefore, we need people in the teaching profession who are far above others in thinking, working, and ambition for our way of life.

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The need is greatest now because of all the dangers from abroad and from within our own borders to undermine our thinking, to befuddle us with controversial subjects so as to lead us away from our form of government. From every corner the cry is for leaders, leaders to lead us out of our uncertain world and give us the weapons with which to think clearly for ourselves. Therefore now more than ever, we need to have teachers who will give the youth of today and the citizen of tomorrow the weapons and materials with which they can help lead our people out of their predicaments. It must be a united effort by present-day teachers, by present-day parents, and by the present-day people of the thinking world to get people to study for the teaching profession—teachers who will be the leaders to help youth find themselves and thus make possible the leaders of tomorrow.

At the present time the teaching profession has lost favor with the young people. Many youth do not wish to enter the profession because they have seen examples of poor teaching; they have been taught by people who are not the best educators. Many people have entered the profession because it was easy to get a job. It was easy to go through college and study for a teaching career. Many teachers were failures in other occupations and so turned to the field of teaching. There are always openings for teachers. Many good teachers, who were leaders, have left the profession. As a result, there was room for anyone who wanted a job. Therefore, now the profession has teachers who are mediocre people who follow and do not lead.

If we are to uplift the profession, we must get good teachers into the profession. Once the trend is upward, more and more good people with brilliant minds will be challenged by the profession and want to enter it; thus bringing it higher and higher in the fields of the profession.

In concluding the first point, the need for attracting good teachers, the writer has tried to point out the role of education in relationship to our way of life. The democratic way demands leaders in the field of education in order for us to give the young people of today the weapons with which to think clearly and for themselves. Poor teachers will drop the teaching profession lower and lower. We need to bring better teachers into our profession. If we get good people with brilliant minds, it will become increasingly easier to attract other good teachers.

GETTING TEACHERS

A good educational system seems to have ether waves spread all over the country. The word spreads by leaps and bounds to all corners of the state and nation that a particular city, town, county, or state has a good

educational system. As a result, these places have plenty of teachers, and plenty of other teachers are eager to come to these localities to teach. One mark of a good school system is the turnover of its teachers each year. A good system keeps its teachers.

What are some of the sources of teachers? By far the majority of teachers come from teachers' colleges. Each teacher's college maintains a placement bureau with very complete files on its students. Another source of new and untried teachers is those universities that have teacher education. Now we come to experienced teachers. Many teachers have their names listed with teacher agencies. This is a good source for experienced teachers. The last source of teachers is other schools. Many teachers are eager to change their environment.

HOLDING YOUR TEACHERS

The main problem after getting good people to take up teaching and then getting them into your school system is keeping these teachers.

I should like to divide the problem of holding teachers in a city or county system under two main divisions: administration and the public. Let us look at administration.

Under administration we have the superintendent of schools and the principal.

The Superintendent

First, it is up to the superintendent to see that the pay checks are delivered to the teachers on time. Nothing can bother a teacher more than to expect his check on a certain date and then find it is not forthcoming. This results, in many cases, in embarrassing situations to the teacher, thus making him unhappy. The second duty of the superintendent is to explain policies in a manner that will be clear and definite to the teacher. He should interpret any state laws or state department of education policies that concern schools. It is wise to explain all the above before the teacher runs into any conflict. It is the superintendent's duty to check with the principal to see that he has explained the duties that are to be performed by the teacher new to the system. It is the superintendent's duty to see that all teachers have been told about forms and procedures pertaining to any phase of their work. He should inform them of the system's plan of supervision of teachers. The superintendent should not interfere with any teacher's personal life as long as his actions do not violate his contract. For good morale, the superintendent might invite all teachers to meet the school board members at a tea or luncheon meeting.

The Principal

This man is the keynote to securing teachers and holding them. In most cases, the principal is the one who selects the teacher; in many cases a teacher may never meet the superintendent of schools or the school board. The principal is the authority for everything. He sees the teachers every day, talks with them, listens to them, and is close to them. The way in which the principal works with his teachers oftentimes determines whether or not he will have a high or low teacher turnover. Of course, the school board or the superintendent can make so many rules and regulations which are arbitrary, peculiar, and unjust that teachers leave because of them, but in the majority of cases it is the principal who "makes or breaks" his teachers. If the superintendent does make things unhappy for the teachers, a good principal can fight for his teachers and in many cases show the superintendent and school board the error of their ways. A teachers' handbook containing information about the operation of the school will help the teachers in their work. The principal should see that the teacher finds a satisfactory place in which to live. He should assist new teachers in meeting people. Social functions should be planned so that some local people meet the teachers. The principal might prompt plans for social functions for new teachers by the other teachers. He should be anxious to promote better understanding, fellowship, and prestige between the community and the teachers. In short, the principal is the man who can keep the teachers once they are in his school. Many teachers refuse to leave a school for higher salaries because their principal does the things enumerated above.

THE PUBLIC'S RESPONSIBILITIES TO THE TEACHERS

The Civic Officials

The city and county officials might publicly make a welcome speech to the new teachers. They might hold an official Teachers' Welcome Day to celebrate the opening of school, the return of old teachers, and the welcome of new teachers.

The Parents

Parents should be urged to meet all the teachers. They should be urged to invite them to civic and social clubs. Parents should exert a special effort to make teachers know that they are wanted and welcomed in the community. They should give the teachers the respect that is due them because of their important work and of their profession, should honor

them with responsible positions if the teachers are interested, and in many cases they are.

Other Citizens of the Community

This group includes those people who have no children and those who have children but are not of school age. They are concerned with the teachers, because the teachers take part in community life. If the community gets good teachers, it is up to everyone to keep them. Only by making them happy can they retain their teachers. These people of the community should take an interest in the schools and help the parents of school children promote the ways and means as discussed by parents for the betterment of teachers.

OTHER FACTORS

Why do people take up the profession of teaching? Some of the reasons are social position, prestige, and interest in youth. The writer realizes that these do not include all the reasons, but in the majority of cases they play a very important part in a person's decision to become a school teacher. One of the factors that keep a teacher in a community is tenure. Teachers know that in some communities they will be able to retain their position as long as they do good work and do not violate the rules of society. They feel safe to work and progress without fear. A sense of security must be given the teacher. Another point to consider is the salary. No teacher ever gets rich from teaching. He does expect a salary that is in keeping with his profession. The salary should be sufficient to permit him to join any social group with which he wishes to associate. It should permit him the freedom to keep abreast of the times by travel and study. It is a known fact that the salaries of teachers are not equal to other professions. As a result, our best men and women leave the teaching profession in order to provide adequately for their needs.

New Film on Food

Science and Your Daily Food is a new 16-mm. (27 minutes) sound film in color, recently released by the First National Stores, Public Relations Department, 5 Middlesex Avenue, Somerville 45, Mass. It highlights the important role played by science in the production of food. The film is being booked for showings on a free loan basis. Schools may secure it by making request to the above address and by paying only return transportation charges. First and second choice dates of showing should be made at the time of application. Engagement of a date should be done promptly since only a limited number of prints are available.

Best Books of 1947 on Vocational Guidance

EACH year the editors of *Occupational Index* undertake to review all new books containing occupational information and all new books that discuss the theory and practice of vocational guidance. Books containing facts about jobs are annotated and reported quarterly in the *Occupational Index*. The best of the books dealing with the theory and practice of vocational guidance are annotated in an annual list; this is it. The list includes one 1946 publication which was not received until 1947.

Inclusion of a book in this list does not mean that we consider it infallible. It does mean that we have compared the book with other publications and concluded that it does contain useful information that would be of interest to readers who try to keep up to date on the better literature in this field.

Apologies are made in advance to authors and publishers whose books have not been included and to those who find the annotations inadequate. We could be wrong.

1. Cassidy, R., and Kozman, H.C. *Counseling Girls in a Changing Society*. 1947. New York 18: McGraw-Hill Book Co., 330 W. 42 St. 441 pages. $3.75. Basic assumption: "Individual-and-environment are a total interacting unit." Scope of task and past and present-day attitude toward women and girls. Present-day scientific knowledge about adolescent girls in the social context of our contemporary United States and problems faced by this group. Implications for counseling and advising; processes and techniques for aiding girls to meet problems arising in their school, home, and community living. The counselor as a person, his preparation and qualifications.

Robert Hoppock is Professor of Education at New York University, Washington Square, New York City.

2. Erickson, C. E. *A Basic Text for Guidance Workers.* 1947. New York: Prentice-Hall, 70 Fifth Ave. 566 pages. $4.25. A symposium of nineteen chapters by twenty authors on the following topics: the role of guidance services; basic growth concepts and their use in a program of guidance; learning about pupils through the use of tests and other instruments; case-study techniques; interviewing techniques; therapeutic counseling; helping pupils plan their programs; helping pupils with their problems; the contributions of classroom teachers; group-guidance activities; self-appraisal and career courses; the community survey; working with home and community; the role of work experience; placement and follow-up services; stimulating faculty growth; organizing the guidance program; and sources of information and assistance.

3. Erickson, C. E., and Smith, G. E. *Organization and Administration of Guidance Services.* 1947. New York 18: McGraw-Hill Book Co., 330 W. 42nd St., 276 pages. $3.00. A comprehensive survey with major emphasis upon the contributions of teachers to the guidance program. Chapters on principles and functions, organization, personnel, basic elements, activating the program, selection and training of staff, and evaluation.

4. Gordon, H. P.; Densford, K. J.; and Williamson, E. G. *Counseling in Schools of Nursing.* 1947. New York 18: McGraw-Hill Book Co., 330 W. 42 St. 279 pages. $3.00. A text for graduate nurses and a "must" for those who wish to increase their knowledge of personnel work in schools of nursing. The learner and the environment in which the learning of nursing takes place. The role and nature of student counseling and personnel services in schools of nursing. Practical suggestions for organizing and maintaining a personnel program in a school of nursing.

5. Hamrin, S. A. *Guidance Talks to Teachers.* 1947. Bloomington, Ill.: McKnight and McKnight. 249 pages. $3.00. Ten guidance talks on the following topics: every teacher a guidance worker; studying the individual; growing up vocationally: using leisure constructively; the commandments of mental hygiene; living together in a democratic society; a guidance program at work; the teacher and nonschool agencies; measuring—rather than guessing; and guidance looks ahead. Appendices filled with concrete means of practicing ideas suggested in the talks. Stresses trends.

6. Kitson, H. D. *How to Find the Right Vocation.* Revised. 1947. New York: Harper and Brothers, 49 E. 33 St. 163 pages. $2.50. Second

revision of a book published originally in 1929. Good common-sense advice for the individual who must choose an occupation without the aid of a counselor.

7. Kitson, H. D. *I Find My Vocation.* Third edition. 1947. New York: McGraw-Hill Book Co., 330 W. 42 St. 278 pages. $1.80. A high-school text. Not a review of facts about jobs but an outline of procedure for choosing a career. The critical reader will find points on which to disagree, plus considerable common-sense and useful information. Psychological testing centers will not relish the advice to "avoid anyone who promises that he will recommend a vocation on the basis of your scores on psychological tests."

8. Seashore, H. *All of Us Have Troubles.* 1947. New York 17: Association Press, 347 Madison Ave. 50 pages. 25 cents. A simply written warning to laymen against psychological charlatans. Specific suggestions on how and where to get reliable help on vocational and personal problems.

9. Terman, L. M., and Oden, M. H. *The Gifted Child Grows Up.* Volume IV. Genetic Studies of Genius. 1947. Stanford, Calif.: Stanford University Press. 448 pages. $6.00. Chief aim of the report is to give as complete a picture as possible of what the California group of gifted subjects is like at the end of the first twenty-five years of testing and observation. Review of original research and outcomes; present health and general adjustment; intellectual status and intelligence (". . . the IQ level is one of the most important facts that can be learned about any child."); vocational and avocational status; attitudes; marital status and adjustment; achievement records; and plans for future research are some of the factors dealt with in this monumental study.

10. *Vocational Education of College Grade.* Bulletin 1946, No. 18. Federal Security Agency. Washington 25, D. C.: Supt. of Documents. 126 pages. 30 cents. Uses for and nature and extent of college training for subprofessional occupations. Brief descriptions of current programs in seventeen institutions which have accepted the idea that "youth should be taken as far along the educational highway as they can travel advantageously, even though their purposes may not be in line with traditional baccalaureate requirements." If increasing enrollments force the colleges to adapt their curricula to the needs and abilities of a wider range of students, as the secondary schools have already done, this book may be a preview of the college of the future.

An Experiment in Group Guidance

HERBERT WEY

IT is one thing to wish for and another to have a successful guidance program. Ten years ago the faculty of Appalachian State Teachers College Demonstration High School wished for a group guidance program. The purpose of this article is to tell of the many problems that were confronted from the time of the wish to its fulfillment—from the inauguration of this program until the present time—in hope that other schools may profit from these many experiences.

The development of this program had three distinct phases. The first was a failure. The second represented success to a certain extent, but still did not meet fully the objectives that the faculty thought it should. The third is in operation today and, although still developing, is considered to be reaching most of its goals.

FIRST ATTEMPTS

The inauguration of the first phase of this program consisted of only two steps. The first was the setting up of a home-room period in the regular daily schedule. It was decided to make the home-room period thirty minutes long and to put it in the first part of the morning. It was thought that this would be the time the students would get most from the guidance program. The second step was to choose one of the available textbooks suitable for use in a group guidance program. This was the extent of planning for the beginning of the group guidance program in the first phase.

The program was received with an indifferent attitude on the part of the students. The author of this article was a home-room teacher at that time and was met on the first day with this very discouraging question: "How much credit toward graduation are we going to get from this?" It seemed that the students were not interested in vocational guidance or in any other

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type of guidance that came out of a textbook. The home-room program looked to them like just another course to be studied. Because of this, the program got off to a very bad start. However, due to the fact that educators are often more determined than students, the program was continued over a two-year period. By the end of the second year, most of the home-room teachers had given up the idea of group guidance and were using the home-room period for a study period.

The faculty discussed this problem at one of their general meetings and concluded that the school was still very much in need of a guidance program. They decided at this meeting to set up a guidance committee composed of four faculty members who would decide the topics to be discussed during the home-room guidance period. They planned the periods for Mondays and Wednesdays and inaugurated a club program[1] for the home-room time on Tuesdays and Thursdays.[2] The home-room period on Friday was already being used for the school assembly.

THE REVISION

This second phase of the group guidance continued through a four-year period, but again the success of the program was very doubtful. The topics decided upon by the guidance committee were not always of interest to the students, and the success of the guidance period depended largely upon the initiative of the individual home-room teachers. Approximately half of the teachers were preparing materials for discussion on the topic assigned to them by the guidance committee, and the other half were doing very little. The teachers who were doing very little gave as their reason that they did not have time to spare from their other duties to prepare for this type of work.

In succeeding meetings the faculty decided that the group guidance program was still not meeting the needs for which it was introduced. They believed it would be necessary to drop the program or revise it in such a way that it would meet its objectives. Their decision was in favor of retaining the program. The responsibility was then placed in the hands of a revised guidance committee headed by the chairman of the English department, Mr. Cratis Williams.[3] This revised committee had six years of mistakes from which to profit. With the record of these mistakes in mind, they began their planning. The committee decided that the program had failed in the past because of the following reasons:

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[1]Complete description of extracurricular activities program can be found in the article "Improving Education Through an Activities Program" by H. Wey and R. Daniel, *School Activities*, September and October, 1946.

[2]The home rooms were already divided according to sex.

[3]Now professor of English and Speech, Appalachian State Teachers College, Boone, N. C.

1. The group guidance programs had consisted of only what teachers thought students need to know. To a large extent they had failed to consider the interests of the ones for whom the program was planned.

2. All teachers were not able and some did not have the initiative to plan and follow through on a topic for group guidance discussion.

3. The home-room period which consisted of thirty minutes was not enough time to take care of both administrative problems and group guidance discussion.

4. The idea of the textbook study lesson which was first used was contrary to the purposes of a group guidance discussion in which the students should be allowed to discover and solve the problems that are of the greatest and most immediate interest to the group.

5. The topics decided upon for group discussion were not always of interest to students on different grade levels; for example, the ninth-grade home-room boys might not be at all interested in that which would be of vital importance to the senior home-room girls.

6. Not all of the faculty and very few of the student body had come to sense the real need of a guidance program.

GUIDING PRINCIPLES

With these factors in mind, the guidance committee entered the third phase of development and first requested that students be added to the committee. Students were added and the committee, now composed of four faculty members and four students, make a thorough study of the field of guidance. The inclusion of the ideas and planning ability of the students was undoubtedly the most important aspect of the third revision of the program. The committee studied guidance programs in other schools, reviewed the literature in the field, and discussed the program with the student body as a whole. The following recommendations were then made:

1. To be successful the group guidance program would have to make use of the planning and interest of the student body as a whole.

2. The guidance committee should be headed by a co-ordinator who should be relieved of at least part of his classwork in order to work with the student body and faculty in planning and preparing the topics for discussion.

3. The group guidance co-ordinator should be a person who could also do individual counseling for those pupils who sought his help and for those students who were referred to him by home-room sponsors. At least

two other people should be designated to assist him with this phase of the program.

4. The home-room period should be lengthened to fifty minutes, and the administrative activities should be stopped by the ringing of a bell ten minutes after the home-room period started. This would leave forty minutes to be used for guidance each Monday morning and twice a month on Wednesday morning. The other two Wednesday morning periods each month should be used for a home-room program to be carried out as far as possible by the officers of the home room.

5. The home-room teacher assigned to a group of entering students should remain with them as a sponsor until the pupils were graduated from high school. This home-room teacher should be responsible for the guidance, keeping of the records, and contact between the home and school for her group. Any individual whose problems cannot be solved by the home-room sponsor should be referred to the guidance co-ordinator.

These recommendations were adopted by the faculty and put into effect. The lengthened home-room period was used by the students under the supervision of the sponsor to decide which areas were of the greatest need and interest for discussion and research during their guidance period. From these discussions the guidance co-ordinator with the help of the guidance committee, which was now composed of students as well as teachers, chose the areas of most interest and importance.

Among the different grades, there was a wide variety of interests in the different areas. The junior and senior home rooms were interested in the area of "Selecting Vocations." The lower grades were more interested in such topics as "Sportsmanship," "School Spirit," and "How to Get Along with Others." All of the home rooms were interested in the area of "Personal and Social Assets."

Using the areas of interests as a basis, a questionnaire was prepared listing the number of topics for discussion under each area. This questionnaire was then given to the students in each home room for them to fill out. The results of the questionnaire were placed in two groups. All topics that were of interest to all of the home rooms were put into the first group. The second group was composed of those topics that were of interest to individual home rooms or to a certain grade level. From these two groups of topics, the guidance committee prepared a calendar for each home room. The topics which were of school-wide interest were placed on each home-room calendar at the same date. This was done to place school-wide emphasis on these topics at the same time.

STEPS TAKEN

The guidance committee under the direction of the co-ordinator assumed the responsibility for the preparation or collection of the guidance bulletins. Upon completion, the guidance bulletins were mimeographed and made available to the various home rooms. Another very important contribution to the success of this program was the planning and construction of many of these forms by different student organizations. For example, the Lettermen's Club prepared guidance bulletins on "School Spirit" and on "Sportsmanship." "How to Make Best Use of the Library" was prepared by the Library Club. The topic "How to Get Along at School Parties" was prepared by the senior English classes.

The school has several standing committees composed of faculty members and students. These committees were also allowed to contribute bulletins for use during the guidance period. An example is "Choosing your Extracurricular Activities" which was prepared by the Extracurricular Activities Committee. Leaders from the home rooms and other student organizations met with Mr. Williams to discuss the feeling of the student body toward certain topics and to make plans for additional topics.

So that the different groups would have some guide to follow in preparing the guidance bulletins, the following outline was suggested:

1. Name of topic to be discussed
2. Purpose of topic
3. Suggestions to home-room sponsor and officers as to preparation for the guidance topics
4. Suggested procedures for carrying on activities
5. Information and data vital to topic to be discussed

The guidance committee took charge of several general faculty meetings at which they discussed the importance and some of the better methods of conducting a group guidance meeting.

STUDENT INTEREST

The revised guidance program was met with an entirely different attitude by the student body as a whole, the reason being that the students were beginning to feel that the program was theirs. Also, the topics were ones in which they were interested. The home-room officers were encouraged to take over the leadership in the discussion of any topic that could be handled satisfactorily by them. Today they are accepting this responsibility more and more, especially in the upper grades.

The number and variety of themes for these guidance periods increased rapidly. In addition to the topics already referred to, the following are just a few of the areas in which the students and faculty felt there was a need for discussion: "Study Habits," "Spare Time Activities," "Our Educational Plans for the Future," "Our Vocational Plans," "Courtesy," "Respect for the Property of Others," "What is Honesty?" "Purposes of Education," and "How Can I Recognize a Good Leader?"

In addition to providing group guidance, the program was broadened to include many other phases of guidance. Pupils were given self-evaluation check lists on such topics as: "Personal and Social Assets," "Do I Make Good Use of My Time?" "Courtesy," and many others. Those individuals who wanted to be were evaluated by their group. Teachers also evaluated the social and personal assets of each of their pupils. The results of all these evaluations soon brought about an awareness on the part of each pupil of his fellow pupils that had not been there before.

In order to carry on this program, the need for individual cumulative records was realized. This need was met adequately and the school now has a complete set of records for each student, both in the main office and in the office of the guidance co-ordinator.

Through a thorough testing program consisting of intelligence tests, reading tests, vocabulary tests, and achievement tests, a fairly accurate estimate of each student's ability has been obtained. Twice a year the faculty evaluate themselves as to their efforts and success in the administering of the guidance program. The "Guidance Checklist for Classroom Teachers," prepared by Dr. C. C. Dunsmoor,[4] is used for this evaluation.

Space is not available to go into more detail on these or other phases of the guidance program which has developed from the program which was inaugurated ten years ago. The two factors of pupil interests and pupil planning, which to some extent were brought to life by the guidance program are spreading to other phases of the school curriculum. The realization and utilization of these two factors are playing a large part in the new feeling that the pupils now have toward education and the school as a whole. The "wish" which was manifested ten years ago is rapidly approaching the stage of "attainment." It is fully realized that considerable progress still lies ahead and the program could easily go in reverse unless continual improvement is made. However, it is felt that a great deal of progress has been made since the day the boy asked, "How much credit will we get for this?"

[4]Dunsmoor, Clarence C., and Miller, Leonard M. *Guidance Methods for Teachers.* Scranton, Pa.: International Textbook Company. 1942.

Group Learning Proves Effective

LILLIAN C. PARHAM

RECENTLY Washington, D. C., schools were asked to celebrate Rededication Week and to climax the week with a youth program. Realizing the importance of such a vital program, a committee of teachers composed of heads of departments was chosen at Stuart Junior High School to set up a good comprehensive program for the week. This committee chose to make special use of the intercommunication system and the co-operation of all teachers and branches of the school.

MATERIAL TO BE PRESENTED

It was decided that a few of the most famous political documents should be presented along with a setting, script, music, poetry, record, *etc.*, of a patriotic note in fifteen-minute morning broadcasts over the intercommunication system to each classroom. The social studies teacher was to prepare these morning broadcasts and to give a list of questions for study near the beginning of each broadcast. The outline for the broadcasts follows:

Monday:
1. Magna Charta
2. Series of four records telling about the *Magna Charta* and the celebration at the Library of Congress when it was returned to the English (WTOP-CBS)

Tuesday:
1. Declaration of Independence (Read with cuts to emphasize outstanding points)
2. "Give Me Liberty or Give Me Death," by Patrick Henry
3. "Paul Revere's Ride" by Henry Wadsworth Longfellow

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Wednesday: Music—Selection by four boys from the orchestra

1. The Constitution
2. Group recitation of "Preamble"
3. American Bill of Rights

Thursday:

1. Opening exercises with the whole school
2. Music—selection by four boys from the orchestra
3. Group recitation of the "American's Creed"
4. Lincoln's Gettysburg Address
5. United Nations Charter
6. Names of other famous documents on the "Freedom Train"

WHOLE SCHOOL CO-OPERATION URGED

All subject teachers and home-room teachers were urged to carry on the study of the documents presented in the morning broadcasts.

A. *Home Rooms*

1. List questions given in broadcasts on blackboard
2. Display famous documents of freedom
3. Post bulletin-board material on the "Freedom Train" and its documents
4. Give two planned lessons
   a. *Monday*—Guidance Lesson on "Rededication Week" and the "Freedom Train"
   b. *Tuesday*—Rules for "Getting along with people"

B. *Social Studies Classes*

1. Devote a good portion of the class periods to a discussion of the questions and answers coming out of the morning broadcasts. Give further study also.
2. Show films on democracy and patriotism.
3. Stress meaning of democracy.
4. Revitalize a pride in the American way of life.
5. Inspire love of country.
6. Give an understanding of and respect for the American heritage of liberty.
7. Assist students to become active citizens.
8. In current events, note threats to liberty, and understand the expanding and changing concepts of freedom.

C. *English Classes*
1. Devote a good portion of the class period to questions and answers given in broadcasts.
2. Further study on the documents:
   a. Study phrases used in charters, declarations, speeches, *etc.*
   b. Study meaning given in the famous documents.
   c. Note the need for care and accuracy in expression.

D. *Latin Classes*
1. Study the history of democracy.
2. Learn the contributions of Latin to the Constitution.

E. *Art Classes*
1. Make posters for "Rededication Week."
2. Print letters on cards for "Rededication" drill to be used in the assembly.

F. *Music Classes*
1. Sing patriotic songs.
2. Learn "The Freedom Train."

G. *Print-Shop Classes*
1. Make posters for the assembly.

H. *Typing Classes*
1. Type one question and answer each day on the document of that day.

I. *Mathematics Classes*
1. Compute years and stress length of time between famous documents and their relationship to important dates already learned—*e.g.*, 1492.

J. *Orchestra Class*
1. Prepare selections for broadcasts.

K. *Social Adjustment Classes*
1. Prepare the "Freedom Train" number for the assembly.

L. *Building Displays of Documents and Materials*
1. A shelf in the *library* of suitable references on the "Freedom Train" documents.
2. Tables in the *front hall* covered with pictures, documents, references, and materials.
3. A large "Freedom Train" *poster* standing just outside the *auditorium*

TESTING KNOWLEDGE

On Thursday, following the fourth and last morning broadcast, a mimeographed quiz sheet was given to all pupils in the entire school while in their section rooms. This test called for fifteen answers—mainly a word response to be filled in a blank. From the test the top-learners were determined and the best-informed pupil of each section chosen for a quiz program to take place in the assembly hall on Friday.

Incidentally, it should be mentioned that some time had been devoted to the explanation of the test, its administration and scoring, during the teachers' meeting after school Wednesday. This further publicized the plan.

RE-EMPHASIZING FACTS IN THE ASSEMBLY

The teaching of the week was completed with a quiz program on Friday morning. Here the whole school met for the Youth Program. An atmosphere was created for the quiz by patriotic songs, poetry, an exercise given on the letters of the word "Rededication," and the singing of "The Freedom Train" with gestures. The quiz itself was genuinely supported and carried through with high enthusiasm, both on the part of contestants and the audience. Many students stood for a number of rounds. It was finally decided to present *two* boys with certificates of award because they lasted through twelve rounds and gave evidence of real knowledge and understanding of the documents studied. More singing, poetry, and an effective flag drill of boys and girls in uniforms concluded the program.

OUTCOMES OR EVALUATION

1. A keen interest in the political documents and an impetus for further study of them was created by the fifteen-minute broadcasts over the intercommunication system.
2. The whole student body and all teachers supported the learning activities of the week wholeheartedly.
3. Good correlation took place among all subjects.
4. The plan gave opportunities for emphasizing and re-emphasizing teaching and reteaching of vital facts.
5. A variety of presentation was the result of many teachers furthering the daily program.
6. The assembly program gave two social adjustment classes a chance to take part in an assembly program, because they had learned to sing "The Freedom Train" with gestures and a card display.

7. Teachers among themselves and with students also voluntarily talked about the documents and the questions between classes and at lunch time.
8. Such a program stimulated publicity for the "Freedom Train" and its cargo.
9. Pupils were found to join in on familiar lines and verses when they came over the intercommunication system, without it being suggested.
10. Social studies teachers asked for the return of the test papers so they could make further use of them.
11. Social studies teachers suggested that they use the test-paper grades as important ones on the present advisory sheets.
12. Correct spelling was emphasized daily, and it counted on the test.
13. *Much learning definitely took place on the political documents in all sections of the school.*

All in all, the whole program was very successful.

New Discount by WAA on Surplus Property

WAR Assets Administrator Jess Larson has authorized public benefit discount allowances of 95 per cent on virtually all types of surplus personal property purchased by nonprofit educational and public health institutions and instrumentalities. Eligible educational and public health institutions, under the new order, may purchase all items in WAA inventories except those classified as raw products, railroad transportation equipment, manufactured feed, tobacco and tobacco products, end products of leather, miscellaneous parts and assemblies, and amunition ordnance materials and guns.

Secondary and elementary schools, as well as colleges and universities, will benefit directly from the new order, in that all of these institutions will now be able to stretch their limited budgets for much-needed operational and instructional equipment in WAA inventories. Approval of the enlarged nominal pricing program does not change the priority positions of educational and public health institutions, but it will enable them to receive a larger percentage of available surplus.

The program will be administered through the Priority Claimants Divisions of the various WAA field offices. Administrator Larson called upon Charles G. Lavin, Director, Priority Claimants Division, WAA, to make every effort to increase the flow of property to educational and public health fields both through the new discount policy and donation procedures already in effect.

Educational Opportunities for Americans in Foreign Countries Through the Fulbright Act

PAUL E. ELICKER

THE following summary has been prepared in response to a growing interest in the Fulbright Act and particularly to the opportunities it affords in all fields of teaching and advanced research in institutions of higher learning. The Fulbright Act (Public Law No. 584) authorizes the U. S. Department of State to use a portion of the foreign currencies resulting from the sale of surplus property abroad for educational activities with foreign countries. It should be stressed that, since the money is available only in foreign currencies, individual arrangements must be made by each American participating in the program for such dollar balances as he will require to meet his family needs and other obligations in the United States during the period of his absence abroad.

At present, agreements have been signed with only two countries—China and Burma. Negotiations are also in progress with the following: Australia, Austria, Belgium, Egypt, Finland, France, Greece, Hungary, Iran, Italy, the Netherlands, the Netherlands East Indies, New Zealand, Norway, the Philippines, Siam, Turkey, and the United Kingdom. It is expected that other countries will be added to the list. While the term *educational activities* may be interpreted very broadly, the following amplification will serve as a more useful guide to the types of activities envisaged:

1. Aid in international reconstruction by assisting foreign countries to secure the services of Americans with specialized knowledges and skills and to assist the peoples of these countries to understand the American people, their achievements, and their ideals;

Paul E. Elicker, who obtained this information from the American Council on Education, Washington, D. C., is Executive Secretary, National Association of Secondary-School Principals, Washington 6, D. C.

2. Provision for Americans to study, teach, and conduct research abroad in connection with American schools or with institutions of higher learning, and to add to the store of knowledge of foreign areas, peoples, and cultures;
3. Opportunities for a limited number of foreign students to study in American institutions abroad and to assist foreign students and teachers to engage in educational activities in the United States by paying for their transportation wherever foreign currencies can be used for this purpose.

Under the terms of the Fulbright Act, a Board of Foreign Scholarships is charged with the responsibility of selecting individuals and institutions which will participate under the act and with the supervison of the exchange program. The Board is composed of individuals representing a wide range of educational and cultural interests in addition to representatives of the government agencies most concerned. The Board has delegated responsibility for preliminary screening of applicants for grants to three agencies:

1. The Institute of International Education for those wishing to study in foreign institutions, primarily at the graduate level;
2. The U. S. Office of Education for those wishing to teach abroad in national elementary and secondary schools;
3. The Conference Board of Associated Research Councils for those wishing to teach, lecture, or offer technical instruction in connection with institutions of higher learning or to pursue studies and research abroad at the postdoctoral level. The Conference Board will also screen applicants for teaching positions in American elementary and secondary schools abroad.

For discharging its part of the responsibility, the Conference Board has established a Committee on International Exchange of Persons with offices at the National Academy of Sciences Building, Washington, D. C. All inquiries concerning the exchange of professors, lecturers, specialists, and research scholars at the postdoctoral level, and inquiries concerning opportunities for teaching in American primary and secondary schools abroad, including requests for application forms, should be addressed to:

The Executive Secretary
Committee on International Exchange of Persons
Conference Board of Associated Research Councils
2101 Constitution Avenue
Washington 25, D. C.

Inquiries relating to graduate student exchanges should be addressed to:

Institute of International Education

2 West 45th Street
New York 19, New York

All inquiries relating to elementary- and secondary-school teaching should be addressed to:

The U. S. Office of Education
4th and Independence Ave., S. W.
Washington 25, D. C.

Inquiries relating to exchanges other than those concerned with the Fulbright Act should be addressed to:

The Division of International Exchange of Persons
U. S. Department of State
Washington 25, D. C.

National Honor Society Scholarship Winners

ON March 16, 1948, the third National Honor Society scholarship examination was held under the direction of the National Association of Secondary-School Principals. The National Honor Society, sponsored by the National Association of Secondary-School Principals, is a national youth organization in secondary schools similar to the Phi Beta Kappa society in colleges. Almost 3600 public and private high schools of the nation now have chapters of the National Honor Society.

In this competition, 5580 seniors, representing the upper 25 per cent of members of the National Honor Society, took a very difficult General Aptitude Test. From the 160 highest-ranking students in this test, ten college scholarships, totaling $3,000, were awarded to those high-school seniors of exceptional ability. The winners were selected on the bases of their high rank on the national test, their school records, and their deserving of financial assistance. The Scholarship Board has just announced not only the ten scholarship winners, but also four honorary scholarships and twenty-five awards or alternates.

This fund is provided by the Josten Company, Owatonna, Minnesota, as a public service to talented youth, and is administered by The Scholarship Board of the National Association of Secondary-School Principals, composed of nationally known school administrators. Dr. L. W. Brooks, Superintendent of Public Instruction for Kansas, is Chairman and Paul E. Elicker, Executive Secretary, National Association of Secondary-School Principals, Washington, D. C., is Director of this national scholarship project.

The ten National Honor Society scholarship winners are found in ten different states and will enter college next September. Following are the names of the ten winners, together with the school from which they will graduate:

Name	*Name of School*	*Address of School*
Ethel Margaret Aughey	Lincoln High School	Ferndale, Michigan
R. C. Broadstone	Lane County Community	Dighton, Kansas
Maurice Benjamin Burg	Newton High School	Newtonville, Mass.
James Edward Bye	Anoka High School	Anoka, Minnesota

Robert Edward Chrien	West High School	Cleveland, Ohio
Donald Clayton Hildum	North Plainfield H.S.	North Plainfield, N. J.
William Coleman Luft	Goshen Central School	Goshen, New York
Leonard Nanis	Malden High School	Malden, Massachusetts
Patricia Jean Pilliard	Riverside High School	Milwaukee, Wisconsin
Seth Lowell Tuttle	Pasco High School	Pasco, Washington

Four National Honor Society Honorary Scholarships were awarded to students who had distinguished records but were not in need of financial assistance to attend college. These students attained distinguished records on the General Aptitude Test comparable to the ten Scholarship winners. They had sufficient financial resources or won substantial scholarships to assure their attendance in college and were, therefore, awarded Honorary Scholarships by The Scholarship Board.

Name	*Name of School*	*Address of School*
Lloyd Arthur Gerlach	Wauwatosa Senior H.S.	Wauwatosa, Wisconsin
Sarah Belinda Kemp	Southwest High School	Kansas City, Missouri
Dorothy Mae Markert	Rocky River High School	Rocky River, Ohio
William Roderick Rice	North Little Rock Sr. H.S.	North Little Rock, Ark.

The 25 National Honor Society Award winners who are alternates for Scholarships, eligible successively in order of arrangement, are:

Name	*Name of School*	*Address of School*
Lewis Smith Meriwether	Theodore Roosevelt H.S.	Washington, D. C.
Charles Arthur Culver	Janesville High School	Janesville, Wisconsin
Marie E. Frankovitch	Weir High School	Weirton, West Virginia
Judith Marie Wheeler	Scotia High School	Scotia, New York
Anne Hamilton Hall	Central High School	Charlotte, N. C.
Justine Isabel Simon	Winona Senior High Sch.	Winona, Minnesota
Kathleen Keller	Wauseon High School	Wauseon, Ohio
Patricia Ann Paris	Fayetteville High School	Fayetteville, Arkansas
James Wyman Richardson	Washington High School	Sioux Falls, S. D.
Melvin W. Brown	Carrollton High School	Carrollton, Ohio
Michael Alexander	A. B. Davis High School	Mount Vernon, New York
Samuel Cerni	Wilkinsburg Senior High	Wilkinsburg, Pa.
Charles Edward Nelson	Marion High School	Marion, Indiana
Harold Israel Shapiro	Stuyvesant High School	New York, New York
James Nelson Craig	North Side High School	Fort Wayne, Indiana
Mona Miriam Sherd	Cheyenne Senior High	Cheyenne, Wyoming
Stuart David Goldman	Sullivan High School	Chicago, Illinois
Frederick Greene Kitts	Knoxville High School	Knoxville, Tennessee
Calvin Morris Reed	Mont Pleasant High Sch.	Schenectady, New York
Robert William Nanz	Waukesha High School	Waukesha, Wisconsin
Donald Leroy Shirer	Olmsted Falls High School	Olmstead Falls, Ohio
Ralph David McWilliams	Fort Myers Senior H.S.	Fort Myers, Florida
Chester E. Gordon	Heights High School	Cleveland Heights, Ohio
Edith Marie Shumaker	Greenway High School	Coleraine, Minnesota
Ernest Grabelsky	Stuyvesant High School	New York, New York

A
High-School Graduation
FOR ALL AMERICA

To PRINCIPALS of HIGH SCHOOLS:

The National Association of Secondary-School Principals has arranged a national high-school graduation for broadcast over the Mutual Broadcasting System. We urge you and your school to listen in.

WHEN—On Tuesday evening, June 1, 1948—
9:30-10:00 P.M., Eastern Daylight Time
8:30- 9:00 P.M., Central Daylight Time
7:30- 8:00 P.M., Mountain Daylight Time
6:30- 7:00 P.M., Pacific Daylight Time

Recheck the time this program will be on the air in your community.

WHERE—From historic Gettysburg, Pennsylvania. The important part of the regular graduation program of the Gettysburg High School.

WHAT— Some music from the Gettysburg High School Choir and an address by David E. Lilienthal, Chairman of the United States Atomic Energy Commission, on **Youth in the Atomic Age.** The many and great opportunities for youth of today in the new world of tomorrow will be interestingly and appealingly presented by David E. Lilienthal who is guiding the greatest scientific and social exploration of the century.

HOW— Urge your local Mutual Broadcasting System station **now** to carry this program on June 1. Also ask for a transcription of this 30-minute graduation program for rebroadcast later in your school or from your local station.

WHY— If we have your co-operation on this broadcast, we shall be able to obtain more radio time for education in the future. Also, your student should hear the voice of and receive the message from the man who carries a great responsibility for the future of America.

Professionally yours,

PAUL E. ELICKER
Executive Secretary
National Association of Secondary-School Principals

The 1949 Convention Call

to

All Members of the
National Association of Secondary-School Principals

WHAT: The Thirty-third Annual Convention of the National Association of Secondary-School Principals. This convention will be the only large national convention for all Secondary-School Administrators—

Junior High-School Principals
High-School Principals
Junior College Principals

The usual large convention of the American Association of School Administrators will not be held in 1949

WHERE: Chicago, Illinois
Congress Hotel
South Michigan Avenue at Congress Street

WHEN: February 26-March 2 inclusively
Meetings will begin Saturday morning, February 26, and close on Wednesday, March 2

ROOM RESERVATIONS: All members of the National Association of Secondary-School Principals can make room reservations for the convention at special convention rates at the Congress Hotel by writing direct to:

Mr. Daniel Amico
Convention Manager
Congress Hotel
500 South Michigan Avenue
Chicago 5, Illinois

SPECIAL CONVENTION RATES FOR ROOMS FOR MEMBERS

All rooms have private bath.

Single room	$4.00, $5.00, $6.00
Double room (1 bed)	$6.00
Double room (2 beds)	$7.00, $8.00, $9.00
Room for three	$9.00
Room for four	$10.00

Only a limited number of single rooms will be available.
Make your room reservations NOW.

News Notes

CATALOGUE OF SERVICE OPPORTUNITIES—The Commission on Youth Service Projects, 203 North Wabash Ave., Chicago 1, Illinois, has recently released a 32-page brochure entitled *Invest Your Summer, 1948*, under the editorship of Robert Tesdell. This booklet describes projects of services of high-school and college youth for the constructive investment of time, thought, and labor at some of the points where such services are most needed and where groups of short-term volunteers can be of great value. Opportunities for services during the summer months of 1948 are listed under 13 major headings: work camps, caravans, community service, individual service opportunities, students in industry, students in co-operatives, students in agriculture, students in government, interracial workshops, relief projects, institutional service, international service projects in Latin America and Europe, and year-round projects. Full information concerning date of period of the project, a description of the project, the number of persons to be selected for the project, the cost or remuneration to each participant involved in the project, and where to apply is given for each project listed. The booklet is available from The Commission on Youth Service Projects at the above address for 10 cents for a single copy or 8 cents each for ten or more copies.

NAVY HAS AIR-AGE MATERIALS—Material used in the training of pilots may be secured in limited quantities from the Navy by teachers who are interested in Air-Age Education. According to A. B. Combs, Associate in the Division of Instructional Service, State Department of Public Instruction in North Carolina, "These bulletins are interestingly written and will be helpful, especially with high-school classes." They are made available for distribution through the Civil Aeronautics Administration's Training and Educational Division, or they may be secured directly from Aviation Section, Office of Public Relations, Navy Department, Washington, D. C.—*N. C. Public School Bulletin.*

UPCOMING STUDENTS—The population of high-school age will rise from 8,460,000 this year to 11,370,000 by 1960. The elementary school enrollment will continue to increase until about 1956. The total population of elementary and high-school age will reach an all-time high of about 34,200,000 in 1958. These estimates, prepared by the Metropolitan Life Insurance Company, mean that boys and girls between 6 and 17 years will increase by at least 25 per cent during the next decade.

SUMMER WORKSHOP IN ECONOMIC EDUCATION—A curriculum workshop in Problems of Economic Education for the coming summer has been announced by Dean Ernest O. Melby of New York University's School of Education. On invitation of the School of Education, seventy leaders in curriculum development and school administration, representing state departments of education and city school systems throughout the nation, have been enrolled as

participants in the new project. The Workshop will be held July 26 to August 13, 1948, on the campus of the Riverdale Country School, Riverdale-on-Hudson, New York City. Living expenses of Workshop members will be paid by the University, and there will be no tuition charge unless graduate credit is sought. Designed to meet the need of educators to know the facts about our economic order, its potentialities, and problems, the Workshop will have for its theme "Problems of Economic Education in the Public Schools of the United States." Members of the Workshop will focus their studies on the nature of the American social-economic system.

AMERICAN BATTLE ART FROM 1755 TO 1918 IS ILLUSTRATED IN NEW BOOK JUST PUBLISHED BY THE LIBRARY OF CONGRESS—The Library of Congress has just issued *An Album of American Battle Art, 1755-1918*, a folio volume of 319 pages. Designed and printed by the Government Printing Office, it will readily be adjudged one of the most handsome and distinguished books yet produced by the United States Government. The book consists of 150 plates illustrating America's wars from the French and Indian War to the First World War with graphic material as nearly contemporary and firsthand as possible and of detailed commentaries upon each plate. The plates are in large part reproduced from prints, drawings, and photographs in the Library's collections; fifteen were reproduced from originals in possession of other agencies of the U. S. Government, and twelve by the courtesy of nonfederal institutions or individuals.

The *Album* took its origin in an Exhibition of American Battle Art shown at the Library of Congress from July 4 to November 1, 1944, complementary to the Exhibition of American Battle Painting which opened the same day at the National Gallery of Art and which was shown later in the same year at the Museum of Modern Art, New York. The majority of the plates in the *Album* reproduce items included in the Exhibition, but other materials have been added with the object of increasing the variety and of producing a well-rounded book.

The commentary prepared by the editor, Donald H. Mugridge, the Library's Fellow in American History, and his collaborator, Helen F. Conover, also of the Library staff, is intended to make the plates as intelligible as possible to the present-day reader. It includes for each plate (or, occasionally, pair of plates) a technical description useful to collectors and curators, an historical annotation identifying the scene as correctly as possible and underlining its significance, and a graphic note discussing artists, process, style, evidential value, *etc.*

The plates begin with Samuel Blodget's *Prospective Plan of the Battle Fought Near Lake George* in 1755, engraved and published at Boston before the end of the same year. This and eight other plates depict events of the French and Indian War and Indian troubles which followed its close. Nineteen plates illustrate the American Revolution. Sixteen plates are on the War of 1812, and there are eighteen for the Mexican War. The largest group is that of fifty-five plates illustrating the Civil War, including sixteen drawings by Alfred R. Waud and three by his brother William Waud. These are the original sketches, made

in the field, from wood engravings published in *Harper's Weekly*. There are eight plates for the Spanish-American War and its aftermath. The eleven plates for the First World War are in part official photographs and in part drawings by the staff artists of the American Expeditionary Force, the whole collection of which is in the custody of the Smithsonian Institution.

The *Album* affords an introduction to the military and naval history of the United States, as well as a course in the modes of illustration which have prevailed in the last two centuries. The book is not available from the Library of Congress, but may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. for $5.00 a copy.

FUTURE TEACHERS OF AMERICA—The State Teachers College, West Chester, Pennsylvania, Future Teachers of America Chapter held a regional conference consisting of representatives from surrounding colleges and high schools having such organizations, on Friday afternoon, April 9, in the Philips Memorial Library of the college. The meeting, the first of its type held in Pennsylvania, was arranged in order to pool efforts and resources in a concerted endeavor to develop professional leadership among future teachers. A diversified program of activities composed the conference. In addition to the addresses, a panel discussion by representatives from the various college chapters was held. This was followed by a similar panel composed of high-school representatives. These two groups discussed questions pertaining to the role that an organization such as the Future Teachers of America can play in promoting and encouraging young people of a high quality to enter the teaching profession.—Pennsylvania *Education Bulletin*.

SKIING IN THE SCHOOLS—Last year only nine New York State schools sponsored ski clubs as an intramural or interschool activity. This year the number of ski clubs has grown to more than sixty. Part of the growth resulted from the fact that St. Lawrence University developed a Winter Sports School for teachers and recreation leaders, which emphasizes outdoor winter activity.

INTER-AMERICAN PROGRAMS OF FELLOWSHIPS AND MAINTENANCE GRANTS FOR GRADUATE STUDENTS RESUMED—Resumption of joint United States Office of Education-Department of State programs to provide exchange fellowships and supplementary maintenance or travel grants for graduate study in the other American republics was announced by the United States Office of Education, Federal Security Agency. These programs were suspended during the war years. Under provisions of the Buenos Aires Convention for the Promotion of Inter-American Cultural Relations, United States students who are selected will be sent to colleges in Central and South America, beginning July 1.

For the school year 1948-49, applications by United States graduate students for fellowships or grants had to be submitted not later than April 1, 1948, to the Division of International Educational Relations, American Republics Section, United States Office of Education, Washington 25, D. C. United States applicants should have the following qualifications: (1) United States

citizenship; (2) bachelor's degree or equivalent; (3) completion of some graduate study; (4) a satisfactory knowledge of the language of the country to which the graduate student wishes to go; (5) good health, moral character, intellectual ability, and a suitable plan of study or a research topic which has been approved by the student's adviser or supervising professor. In general, students under 35 years of age and veterans will be given preference.

The exchange fellowship program provides for the exchange of two graduate students each year between the United States and each of the following participating countries: Bolivia, Brazil, Chile, Columbia, Costa Rica, the Dominican Republic, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Venezuela. Thus far, Chile, Costa Rica, Haiti, Honduras, the Dominican Republic, and Paraguay have indicated they will be able to receive our students beginning July 1. Transportation to and from the receiving country is paid by the United States government for the United States students. The receiving government pays tuition and a monthly maintenance allowance and, in some cases, a small sum for books and incidental expenses. To meet living expenses, each student may have to supplement his allowances from other sources.

These travel and maintenance grants are supplementary grants awarded to students who have already obtained grants-in-aid, veterans benefits, scholarships, fellowships, or travel grants from private organizations, colleges, and universities, or who have limited funds to carry out worth-while projects. Although an applicant may apply for both a travel and a maintenance grant, both grants, as a general rule, will not be made to the same student. This program covers all the American republics.

The amount of the awards will vary according to individual needs of the students and estimates of the cost of living in the countries in which study is to be undertaken. Round-trip transportation will be furnished by the government to U. S. students awarded travel grants. Those receiving partial maintenance grants will receive monthly payments from the U. S. Government through American Embassies in the countries concerned.

TEACHER NEED—New Hampshire school superintendents say that a superintendent with 50 elementary teachers will have an average of three positions for which no teacher will be available in 1948-49.

NONPARTISAN SCHOOL BOARDS—The Pennsylvania Association of School Directors in their annual session in connection with a similar meeting of school board secretaries took some sound positions in their recommendations. These included such modification of the teachers' tenure law as will rule out any possible abuses of the system the general objective of which is highly desirable. School teachers, in the public interest, ought to be safeguarded from political wrecking crews and likewise the public should be protected from teachers who use the tenure law to save them from misconduct or inefficiency. It is not a bad idea, as the directors contend, to extend the probationary period of a teacher to make certain of qualifications and efficiency. But while the tenure law is being refashioned, there should be no loophole through which a politi-

cally vindictive or tyrannical school board can punish a teacher. The teachers' rights along with those of the people should be safeguarded at all times.

Another proposal is that school directors be elected on a nonpartisan basis, a resumption of an old method which was discarded for no good reason. The very thought of partisanship and politics in the administration of education is abhorrent. There is no place in the school system for a city boss or a ward heeler for "influence" in electing or dismissing a teacher, buying textbooks and other supplies. In every instance, the victims of a political administration of school affairs are the unoffending pupils and their parents. The Legislature might well restore the nonpartisan choice of school directors. The results could be no worse. They are likely to be infinitely better.—*Harrisburg Patriot*, February 7, 1948.

A MASTER'S THESIS PAYS OFF—A master's thesis in education, written eighteen years ago, is today changing and improving America's automobile driving. America's pioneer in driver education is Amos E. Neyhart. In 1930, Mr. Neyhart, like many another graduate student, was casting about for an idea for an M.A. thesis. With the encouragement of his Pennsylvania State College instructors, he picked the topic of driver education for young people. During his research Neyhart found that (in the early 30's) the accident record of young drivers was nine times worse than that of older drivers.

Three years later, in 1933, Mr. Neyhart helped set up the nation's first high-school driver training program at State College, Pennsylvania. The course included both classroom and behind-the-wheel instruction. His work caught the attention of the American Automobile Association in 1936. The AAA asked him to help set up a program which would encourage high schools all over the country to teach driver education. Today, with driver education spreading, some 6,500 instructors trained under Neyhart's supervision teach driving in secondary schools.

Less known is the influence driver training is having on truck and motor vehicle fleet operators. Nearly half a million commercial vehicle drivers have had some Neyhart-inspired training. Truck drivers are becoming among the nation's safest drivers as a result of the training they receive from safety experts. "Insurance companies frequently send their own Neyhart-trained supervisors to train drivers of fleets they are insuring," says the Automobile Manufacturers Association. The college thesis is paying off not only in insurance dollars, but also in saved lives.

APPRENTICESHIP HELD POWERFUL FACTOR IN PROMOTING GOOD INDUSTRIAL RELATIONS—Joint management-labor apprenticeship programs are proving powerful factors in building good industrial relations, William F. Patterson, Director, Bureau of Apprenticeship, U. S. Department of Labor, stated. Patterson's statement was made in Minneapolis at ceremonies at which certificates of completion were awarded to Minneapolis and St. Paul mechanics in the construction industry who recently completed their terms of apprenticeship. The affair was held under the auspices of the Twin City Building Trades

Joint Apprenticeship Committees. These committees are the employer-union bodies which administer the building trades apprenticeship programs in the two cities.

"Industrial relations have been improved in every case in which management and labor participate jointly in an apprenticeship program, as such programs represent voluntary action on the part of employers and their employees to work together for their mutual benefit," Patterson said. "It is one of the principal functions of the Bureau of Apprenticeship, through its field representatives throughout the country, and the Minnesota Apprenticeship Council to get management and labor together to establish and maintain joint apprenticeship programs. These ceremonies, sponsored by Twin cities contractor associations and unions and representing a joint accomplishment for the common welfare, are a concrete example of the good industrial relations fostered by joint participation in apprenticeship. The National Apprenticeship Program can be a part of the American 'know how' which could be exported to the democratic nations of Europe to our mutual advantage. We can help those nations less industrially developed than ours by supplying them with engineers and craftsmen or with methods and procedures of producing them. We should not only provide the instructional techniques, but also provide the method of American employer-employee co-operation to advance their mutual well-being as exemplified by voluntary joint management-labor participation in apprenticeship which has proven its value throughout the country," Patterson declared.

PRONOUNCING DICTIONARY OF NAMES IN THE NEWS—The second and enlarged edition of W. Cabell Greet's pioneering work, WORLD WORDS, was published in April. Professor Greet's authoritative guide to the pronunciation of names in the news now has twice as many entries as before—approximately 25,000. Originally compiled as a short mimeographed pamphlet for the use of CBS announcers, it has now become the standard reference for teachers, librarians, public speakers, and many others who read the news and talk about it. Each entry is respelled in two ways: first in a simplified Websterian alphabet, then phonetically without special markings, so that the pronunciation is self-evident. Revisions include the marking of stresses on Japanese names to regularize our pronunciation of them; the listing of both old and new names of European territory that is being reshuffled; the names of important airports; and the listing of many French, German, and Italian provincial towns which appear in no other American or English volume.

The author's notes clarifying controversial pronunciations are always lucid and often amusing. For instance, on the word "pianist." "The situation is unstable. For example the stressed *pi* as spoken by Paderewski's advance-man in 1912 or 1913 turned El Paso, Texas, overnight from a pi*a*nist town to a *pi*anist town." Mr. Greet is Professor of English at Barnard College, as well as speech consultant to the Columbia Broadcasting System and editor of the magazine *American Speech*. The book is priced at $6.75 and is available from the Columbia University Press, 2690 Broadway, New York 27, New York.

AIDS TO YOUR PROFESSIONAL READING—A new service has been established to aid superintendents, principals, and teachers to obtain and use the most meaningful and significant current educational books. The distinguished and representative group of educators making the *quarterly* selections for Professional Books, Inc., Minneapolis 14, Minnesota, are Dr. Francis L. Bacon, Superintendent, Evanston Township Schools, Evanston, Illinois; Dr. William G. Carr, Associate Secretary, National Education Association, Washington, D.C.; Dr. John S. Carroll, Superintendent of Schools, San Diego County, San Diego, California; and Dr. Claude A. Eggertsen, Secretary of Board, Assistant Professor of Education, University of Michigan, Ann Arbor, Michigan. For each selection, a Manual is prepared by one or more competent educators, which provides a critical review of the book, a suggested discussion outline for meetings of teachers and other groups, attitude scales, and an annotated list of related materials. Professional Books, Inc., has chosen for its first selections *Education for What Is Real*, by Earl C. Kelley, and *I Want to Be Like Stalin*, as translated by George S. Counts and Nucia P. Lodge.

EDUCATIONAL WORKSHOP—"Leadership in Education" will be the theme of an Educational Conference and School Administrators' Workshop to be held at Ohio State University this summer. The three-week workshop, aimed at promoting the advancement of professional leadership in public education, is scheduled for July 12 to 30, 1948 and is designed for school administrators on all levels.

The Educational Conference for school administrators, teachers, board members, school business officials, graduate students, and others will take place July 13 and 14, when the workshop will not be in session.

Workshop participants will register for Education 626, and this work will carry four quarter-hours of University credit. Advance registration is recommended for both the conference and the workshop. Total fee for the workshop will be $25 ($15 tuition and $10 laboratory fee). Conference registration fee will be $1, and checks in payment of the conference fee should be made payable to W. R. Flesher, 200 Arps Hall, Ohio State University, Columbus 10, who will provide detailed information on both meetings.

The Conference and Workshop will be sponsored by the Ohio State College of Education in co-operation with the Ohio Department of Education, the Ohio Education Association, the Ohio County Superintendents Association, the Ohio Department of Elementary School Principals, the Ohio Exempted Village Superintendents Association, the Ohio High-School Principals Association, and the Ohio Superintendents Association.

CORONET RELEASES FOUR NEW FILMS—During the past month CORONET Instructional Films has completed three new physical science productions and one new film in mathematics. These four sound films, available in color or black and white, are:

Introduction to Electricity (One reel) opens students' eyes to electricity's magic properties, yet makes its principles concrete and simple.

The Nature of Sound (One reel) teaches sound with sound, illustrated, animated, and in motion.

The Sounds of Music (One reel) presents the characteristics of musical sound. This lucid explanation of the magnificent sounds of music is designed for junior and senior high-school students in both music and physics classes.

The Language of Graphs (1¼ reels) illustrates how clearly graphs can sum up a situation by showing boys and girls considering the financial and circulation problems of their school newspaper with bar, line, circle, and equation graphs to picture relationships and make comparisons.

Each of these new CORONET Instructional Films may be secured through purchase or lease-purchase at $45 in black and white, or $90 a reel in full color. They are also available through the nation's leading film-lending libraries. For a complete catalog or further information on purchase, lease-purchase, preview, or rental sources, write to: CORONET Instructional Films, Coronet Building, Chicago 1, Illinois.

THE BOOK *HIROSHIMA* NOT TO BE MADE AVAILABLE TO JAPANESE —General MacArthur's headquarters will not permit publication in Japanese of *Hiroshima*, John Hersey's best seller on the atomic bombing of the Japanese city. Hersey himself has received this word from the Reverend Kiyoshi Tanimoto, one of the six survivors of the bombing whose experiences he chronicled in the book. *Hiroshima* has been published by Bantam Books in the popular 25-cent edition.

Hersey, who corresponds regularly with Tanimoto, quoted the Methodist minister as saying in a recent letter that the occupation authorities had turned down his application to translate and publish the graphic account of Hiroshima's destruction. Tanimoto, who was pastor of the Hiroshima Methodist Church, told Hersey he had hoped to raise enough funds through publication of the book to rebuild his church. Hersey said Tanimoto did not give MacArthur's reason for banning the book. Presumably, however, *Hiroshima's* revelation of the terrible effects of the bombing is believed to be too graphic for consumption by the Japanese at this time.

Hersey's book has made him something of an authority on things atomic, so much so that he is doing considerable work with the Atomic Scientists Emergency Committee, composed of the men who actually fashioned the atomic weapon.

As for what has become of the six survivors whom he made known the world over through his book, Hersey said Tanimoto tells him that Miss Toshiko Sasaki has entered a convent near Nagasaki, the other Japanese city which was destroyed by an atom bomb; Father Wilhelm Kleinsorge, a Jesuit priest who was badly injured, is confined to a Tokyo hospital, and the other three—Dr. Masakazu Fujii, Mrs. Hatsuyo Nakamura, and Dr. Terufumi Saski —are all still alive in Hiroshima. Tanimoto and the latter three get together regularly, he said.

FIRE LOSS HIGHEST IN U. S. HISTORY—The United States in 1947 suffered fire losses of $692,635,000, the greatest destruction by fire in a single year in its history, according to National Board of Fire Underwriters' estimates. This loss was $130,655,000 or 23.2 per cent greater than the previous all-time high mark of $561,980,000 set in 1926. It was 23.3 per cent greater than the 1946 losses of $561,487,000.

ROTARY INTERNATIONAL TO CO-OPERATE IN UNITED NATIONS INTERNE PROGRAM—To train worthy young men and women for positions of leadership in world affairs, the United Nations is asking its member nations to send forty outstanding students to Lake Success to work as members of the United Nations Secretariat staff, without pay, from July 12 to September 3. Each member nation, or private organization within the nation, will pay the transportation expenses of the student it sends to Lake Success. Rotary International—world-wide service club organization—is co-operating with the United Nations by defraying the living expenses of twenty students during their eight-week stay at Lake Success. The Carnegie Endowment for International Peace will pay the living expenses of the remaining twenty students.

An extensive program of lectures and seminars on international problems has been mapped out for the students to supplement the work they will do as U. N. staff members. They will receive firsthand knowledge of the workings of this international organization, and they will have many opportunities for personal contacts with U. N. delegates and personnel.

Rotary International also will have the privilege of naming four additional students to participate in this internship program. It is anticipated that they will be selected from the overseas students now taking graduate work at universities in the United States under special fellowships awarded by Rotary International. The U. N. internes will be housed at Adelphi College in Garden City, Long Island, New York, about five miles from Lake Success.

Basic qualifications for the interne program are: a fluent knowledge of at least two languages, one of which must be English or French; demonstrated interest in and a knowledge of the field of international affairs; preferably a university degree, but at least a minimum of two years of university study; age between twenty to thirty years.

One of Rotary's principal objectives is the advancement of international understanding, good will and peace; and Rotarians in eighty countries throughout the world are united in an endeavor to make the United Nations an effective instrument for free peoples everywhere.

To assist in developing an informed public opinion on the program of the United Nations and its efforts to promote world peace, Rotary International has published and distributed 150,000 copies of a comprehensive booklet entitled *From Here On!* which contains the complete text of the United Nations Charter, together with comments and pertinent discussion suggestions. Currently, it is supplying Rotary Clubs with up-to-the-minute background information on the United Nations through a special publication entitled *Rotary Reports U. N.*

REVISED EDITION READY—A revised edition of the National Child Labor Committee's pamphlet, *The Case of Sixteen-Year Employment Laws*, incorporating 1947 changes in the age standards of state child labor and compulsory education laws, is now available from the National office. The pamphlet is distributed without charge, in single or quantity orders, and is useful both in the promotion of bills to raise the age standard in state child labor laws from fourteen to sixteen years for full-time employment and in the general educational program of schools, youth agencies, and study groups on child labor laws and standards.—*The American Child.*

FAMILY LIFE EDUCATION—The family life education services have been re-established in Tulsa schools after three years' absence. Significantly, the new approach is to make this department an integral element contributing to the total educational program of the Tulsa, Oklahoma, Public Schools. Teachers and parents need to be concerned with their roles in the business of education for effective family living. They all recognize today the vital importance of the fourth "R"—Relationship—or "getting along with people." They know, too, that mere recognition of this importance is not enough.

Work is now being promoted with elementary-school principals and teachers on child guidance problems. This planning group is a co-operative project by which children's needs are interpreted and goals for the common good are set up. It is realized, in emphasizing the family apart of education, teachers expect and should avail themselves of the co-operation and assistance of parents. Principals can interpret the needs of the parents, and the teachers can furnish an abundance of material which can be used to aid parents in developing a clearer understanding of their children. Thus, Tulsa's ultimate goal is better relationships between home and school. To tie in the needs of the school and home, some time is given to helping leaders in parent study groups to make programs that will deepen the understanding of the behavior patterns of children.—*Tulsa School Review.*

DENVER HAS 22 SPEECH CENTERS—In order to help children who have speech defects, twenty-two speech centers have been set up in the Denver, Colorado, Public Schools. Located in different areas of the city, these centers serve approximately 850 children. "Since speech is learned and since speech defects are generally not due to physical malformation, children can be taught to surmount their difficultes in speech," says Julia Wright, speech correction teacher.

MUSIC FOR ALL—The American people believe overwhelmingly that musical activity should be available to everyone—yet music now is for the minority. This is the finding of the most thorough study ever made of music in America, revealed by the American Music Conference. It presents a cross-section of music attitudes and activities of the entire nation, determined on a "miniature America" basis by precision-sampling methods. The wealth of survey facts—reflecting the musical status of 4,537 families and 15,566 individuals in seventy-four cities, towns, and rural areas—includes the following significant highlights: ninety-five per cent of all families believe that every child should have the opportunity to find out if he is interested in learning to play a musical instrument; eighty-five

per cent of all families believe that class instruction in musical instruments should be offered in the schools in the same way as cooking classes, manual training, or physical education—paid for out of tax-supported school funds.

Actually, however, only twenty per cent of the people who now play an instrument took lessons as part of their school work. Most of these persons were in extracurricular activities such as band or orchestra, and half of them also studied with private teachers. Only 3.5 per cent of those who play the piano, which is not part of the school band, learned it in school without the aid of a private teacher. The average adult believes that children should start taking music lessons at the age of seven years. Yet, among children nine years of age and under, only 3.5 per cent of the boys and 5.6 per cent of the girls are studying music. Children are most active musically in the ten to fourteen age bracket, when they are in school. Three out of four persons have never learned to play an instrument; only one out of eight now plays, and the same number formerly played but gave it up. In almost half of the families no one has ever learned to play, and more than sixty per cent of the homes have no musical instruments. More than seventy-five per cent of the parents of child nonplayers say that no one has ever encouraged them to start their children on an instrument. Over thirty say the cost of instruments or private lessons is a drawback in starting their children in music.

The American people like church music and hymns better than any other types of music. Boogy-woogy and jive are the least popular. Between these two types, in order of preference, are popular dance music, old favorites and folk tunes, semi-classical, cowboy and hillbilly, and classical. The church also was named as the most important factor outside the home in stimulating an interest in music. Tied for second place were movies and musical shows and the schools.

Rural Americans are more musically inclined than their city cousins and they also are less likely to discontinue their musical activity once they have started. Native-born Americans are more musical than foreign-born. Only slightly over three per cent of the families show a complete lack of interest in music.

Six out of ten adults who never learned to play a musical instrument wish they had done so, and forty-four per cent of these still would like to learn if they had the opportunity. Forty per cent of American children definitely want to learn to play a musical instrument, and only ten per cent are actually opposed to the idea.

"In view of the current national birth rate nearing 4,000,000 per year," Louis G. LaMair, president of the American Music Conference, pointed out, "the survey findings clearly indicate the need for a huge expansion of musical opportunities for youth. The survey shows that music education, rarely available in the schools, has been limited by family income. It points to a great field of potential musical development among all Americans, and especially those in the medium and low income groups. The American people believe the opportunity should be provided to children at an early age, as part of their regular schooling."

NEED TO SALVAGE USED FAT IS GREAT—"American women who salvage their used cooking fats contribute directly to the fats and oils supply," say economic experts of the U. S. Department of Agriculture, "and until the basic

supply-demand situation changes materially, the national economy will be served directly by the recovery of every possible pound of waste fats and grease." After a careful study of the need to salvage used cooking fat considering the world-wide fats and oils situation and U. S. fats and oils resources, the Department of Agriculture says, "It obviously makes sense to continue the fat salvage program at full strength." World supplies are still far short of needs and will continue to be for some time. Also U. S. supplies, tied very closely to the world situation, will continue to reflect this tight situation. "Salvage of kitchen fats," a spokesman for the American Fat Salvage Committee points out, "is one conservation measure that benefits everyone. Women who sell their used fats to meat dealers dispose of it in the easiest, cleanest, and most efficient manner and, of course, it is good kitchen thrift during these days of high prices."

DID YOU KNOW THAT—The population of the United States reached 145,340,000 on January 1, 1948. This is an increase of 13,670,000 since the last official (1940) census.

Veterans and their families now constitute 32 per cent of the nation's population.

The number of births in the United States for 1947 was reported by the Census Bureau to be 3,908,000, exceeding the previous year by 500,000.

The death rates are at their lowest in American history.

In 1946 there was one divorce for every three marriages in the United States.

Ten years ago it cost a total of $10,000 to rear a child up to the age of 18 years; now it costs $15,000.

The world's population will increase from its present 2,250 billion to 2,438 billion by the end of 1955. . . . If mankind continues to increase at the present rate, the year 2000 will see a total population half again as large as it is now.—*Adult Education Bulletin.*

THE CASE OF EDUCATION—"The case for the education of adults for effective citizenship is overwhelming. In a society based on the consent of the governed, the 8.4 grades of formal schooling attained by the average adult past twenty-five years of age in the United States is meagre preparation for the responsibilities of citizenship. Practically every major issue of current domestic and international affairs has arisen since the majority of adults left school. In short, the burden which modern living puts on the American adult is of such an order that it is virtually impossible for him to learn too much, to have too much education which he has truly absorbed."—*Ordway Tead.*

SCHOOLROOM LIGHTING GUIDE—More light in the school classroom doesn't necessarily mean better sight for school children, according to *Lighting Schoolrooms*, a 17-page pamphlet released by the Federal Security Agency's Office of Education. Although more light is required in many classrooms, the provision of good seeing conditions is as much a matter of reducing glare and of eliminating sharp contrasts as it is of increasing the intensity of lighting, the pamphlet reports. Brightness differences can be reduced by shielding the lamps, seating pupils so that they will not face windows, repainting walls and ceiling with pastel tints, and using lighter colored furniture and chalk boards, according to Dr.

Ray L. Hamon, Chief of School Housing for the U. S. Office of Education, who prepared the pamphlet.

Intended as a nontechnical guide for architects, school planners, and educational administrators, *Lighting Schoolrooms* furnishes recommendations suitable for remodeling as well as for new school construction. In addition to the problem of "brightness balance," the pamphlet briefly considers the type and location of windows and methods of artificial illumination. Copies of the Office of Education pamphlet, No. 104 *Lighting Schoolrooms*, are available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.; price 10 cents a copy.

DENVER HAS SIGHT-SAVING CLASSROOMS—For children whose vision will be impaired by the demands of average classroom work or who cannot make satisfactory progress in their work because of their poor vision, special materials and equipment have been provided in the sight conservation classes at the Evans School. These materials include radio, phonograph, large type text books, large-size typewriters, adjustable desks, unglazed paper, and soft pencils. To provide optimal conditions, a room has been set up which has maximum daylight and is equipped with adequate artificial lighting when circumstances demand its use. In order to avoid glare, glass has been removed from the clockface and from the pictures that hang in the room.

To meet the needs of the sixteen children now enrolled in the sight-saving classes who represent all levels of maturity and school experience, instruction in the formal subjects must largely be individual. Of great imprtance is the use of discussion techniques and other aural resources, such as the "Talking Book," which is borrowed from the Denver Public Library. Opportunity is provided for group experience in units of work and through participation with other children of the school in the gymnasium, in the art and music studio, on the playground, and in the lunchroom.

NEW FILMS ON ELEMENTS OF ART—A series of eight discussional slidefilms, *Elements of Art*, is announced by The Jam Handy Organization, distributor for Curriculum Films. The purpose of this series is *"not* to teach students to be artists, but rather to express themselves through drawing and painting." Each film helps the teacher explain an important element of art. The films may be used by the teacher to introduce interesting activities in working with these elements. Films in the series are: (1) *Lines;* (2) *Shapes;* (3) *More Shapes;* (4) *Solid Shapes;* (5) *Color;* (6) *Using Color;* (7) *Proportion;* (8) *Painting a Picture.* The cost of the eight slidefilms is $33.50 or $4.95 per individual film. For details write to The Jam Handy Organization, 2821 East Grand Boulevard, Detroit 11.

OUR GREATEST ACHIEVEMENT—The American high schools are one of our greatest national achievements . . . and yet, we fall short of our ideal of providing equal educational opportunities for all youth, the *U. S. Office of Education 1947 Annual Report* emphasizes. At no time have more than seventy-three per cent of the persons of secondary-school age attended school. For many youth attending high school, the offerings are caluculated neither to challenge their interests nor to meet their needs. Probably the most significant single accomplishment of the

U. S. Office of Education during the past year was the leadership given in preparing the nation's high schools to redirect their efforts, according to the *Report*. Educational planning and development leading up to the appointment and recently held first meeting of the Commission on Life Adjustment Education for Youth are reported in the Secondary Education Division's part of the *Report*.

Of special significance to vocational education, according to the *Report*, was the passage of the George-Barden Act, which supersedes the George-Deen Act, authorizing appropriations of funds for vocational education in agriculture, home economics, trades and industry, and distributive occupations. Enrollments in all types of Federally aided vocational education classes increased during the year, with a reported total enrollment of 2,512,105. Enrollments by types of program are as follows: agriculture, 584,571; distributive occupations, 235,087; home economics, 964,521; and trade and industry, 727,926. The preceding year's total enrollment was 2,227,663. Over 100,000 veterans were enrolled in institutional-on-farm training courses under the Servicemen's Adjustment Act of 1944, the *Report* reveals. This program operates with funds from the Veterans Administration through contracts with state boards for vocational education. Homemaking education is offered in about two thirds of the nation's public secondary schools, and homemaking courses have been taken by about two thirds of all high-school girl graduates, the *Office of Education Report* shows. Through the Trade and Industrial Education program, organized apprentice programs have been extended to include about 100 trades. At the end of the year there were approximately 125,000 indentured apprentices, most of whom were receiving instruction supplementary to training and work experience on the job. Public-service enrollments totalled about 50,000 persons in more than 2,500 classes, with instruction being offered in such general areas as fire prevention and fire fighting, guarding people and property, custodial work, school bus driving, generation and distribution of electricity, water supply and sewage disposal, and inspection in the interests of public health and safety.

UNIVERSITY OF HAVANA SUMMER SCHOOL—The University of Havana announces its eighth Summer School Session for foreigners, designed especially for North American teachers and students. Courses in the following subjects will be offered: elementary, intermediate, and advanced Spanish; Spanish conversation; methods of teaching Spanish; Spanish pronunciation; advanced Spanish grammar; commercial Spanish; Spanish literature; Hispanic American literature; Latin American history; social, political, and economic science; ethnography; arts; natural science; and Cuban folk music. Some courses in the above general fields will be offered in English; the majority, however, in Spanish.

Extracurricular lectures by Cuban and Latin American scholars; visits to public buildings, places of historic interest, sugar mills, tobacco plantations; country trips; sports; and cultural and social events will be offered to those attending the summer session. There are also special courses in education, medicine, technical preparation for teachers of English, physical culture, dietetics, odontology, pharmacy, veterinary medicine, and library science. These latter special courses have been organized primarily for Cubans but may be taken by foreigners having a sufficient knowledge of Spanish.

The session extends from July 5 to August 14, 1948, with registration from June 28 to July 3. Further information may be obtained from the Secretary of the Summer School, University of Havana, Havana, Cuba.

CARE OF THE EYES—The American Optometric Association states that adherence to a few simple rules for the care of a child's eyesight "will conserve America's seeing skills and ultimately improve public health, safety, and everyday efficiency." The Association is dedicating itself to help millions of Americans who are working, studying, and playing without adequate vision. Parents and teachers should watch their children for any of these signs of a child's visual problems: headaches, squinting, fatigue, irritability, nervousness, aversion to reading, crossed eyes, and reddish, watering eyes. Parents and teachers should provide for, and teach a child, the proper visual care:

1. He should read books with large print; the younger the child, the larger the print.
2. When reading, he should sit erect with head bent slightly forward and with print *at least* a foot from his eyes. (The same applies to writing or drawing.)
3. Proper lighting is important both at home and in school.
4. Periods of close work should always be limited and separated by rest or other activities.
5. He should follow the general rules of health, for proper rest and diet are requisites of efficient vision.
6. He should have a visual analysis annually by a vision specialist.

OCCUPATIONAL INDEX—The bound volume of *Occupational Index* for 1947 is now available at $6.50 per copy from Occupational Index, Inc., New York University, New York 3, New York. The volume contains more than 450 annotated references on almost 600 different occupations. Among the interesting kinds of work listed in the subject index are Agricultural Missionary, Cowboy, Nut Farmer, and Resort Sampler.

SPECIAL *SURVEY GRAPHIC*—The March issue of *Survey Graphic* was devoted entirely to the subject of *Food*. This 100-page illustrated number discusses the European Recovery Plan at the moment when hunger is the most crucial fact in the world. Contributors were drawn from both sides of the Atlantic. Food is the essence of the world's need to resume productive life, these experts contend. To avert chaos, the aid of America is essential. So is the functioning of the FAO and other international agencies. One copy of the March *Survey Graphic* can be secured for fifty cents; five or more, for forty cents each. Orders for $2 or more are billed, if desired. Orders should be sent to Survey Graphic, 112 East 19 St., New York 3, New York.

HIGH-SCHOOL MARKS ARE INDICATORS—According to the National Association of Manufacturers, the holder of a high-school report card with very high marks has a 10 to 1 chance of success; for average, it is 3 to 1; for low, 1 to 4. Only ten per cent of the people who are fired are dismissed for lack of skill; while ninety per cent are discharged for lack of character as shown by laziness, dishonesty, discourtesy, or some other defect.—*Seattle Principal's Exchange*, January, 1948.

AMERICAN JUNIOR RED CROSS *NEWS* IN SPANISH—The January, 1948, issue of the American Junior Red Cross *News* was the first issue to be printed in Spanish. Spanish editions will be continued for the benefit of members in the nearly 8,000 schoolrooms of Puerto Rico enrolled in the American Junior Red Cross. This experimental period of publication has been made possible through an allocation from the National Children's Fund of the American Junior Red Cross in the expectation that this Spanish language edition will form part of the Red Cross' regular publication schedule. Complimentary copies of this first issue were sent to Red Cross societies in all countries of Latin America in which Spanish is the major language, as well as to the League of Red Cross Societies in Geneva. This marks another step in widening the usefulness of a children's magazine which has been published continuously since 1919. At present an average of 480,000 copies of the *News* is printed in English for schools in the United States and its territories to inform members of their accomplishments in service through the American Junior Red Cross and to give them refreshing examples of the best material available to us in humane art and humane letters.

NATIONAL CONFERENCE OF EDUCATORS OFFERS RECOMMENDATIONS—A conference of school administrators and teachers from sixteen states across the nation held in the U. S. Office of Education, Federal Security Agency, agreed that "increasing tensions in world affairs create an urgent need for alertness by Americans to a possible crisis." Conferring on the "Zeal for American Democracy" program of the U. S. Office of Education, this advisory group of educators, representing all levels of education, recommended to the nation's schools and colleges both long-term planning and immediate adoption suggestions "to assure the fullest possible understanding by students and other citizens of the implications of the developing world crisis and of the need for strengthening American democracy."

NEW FILMS—Young America Films, Inc., 18 East 41st Street, New York 17, has recently released a new film entitled *Sewing: Characteristics and Handling of Materials* (1 reel, sound). This sixth in a series of sewing films is designed for use in high-school and college home economics classes and for women's groups engaged in this type of activity. Young America Films has also made arrangements with the British Information Services for the exclusive distribution in this country and Canada of four new instructional films from Britain. These films are *The Steam Engine, The Steam Turbine, Transmission of Rotary Motion,* and *Electro-Magnetic Induction.* Each of these films has been made very recently for instructional use in Great Britain and has not yet had distribution in this country. Before their release here, the editorial staff of Young America Films will re-edit them, add appropriate domestic footage, and re-voice each with an American sound track, so as to make them of maximum usefulness to American schools. It is thought that the four films will be ready for release during the coming summer or early fall.

In response to requests from school groups, Young America Films has announced a lease-ownership plan, under which individual schools and co-operating groups may purchase Young America teaching films on a three-year

installment basis. This plan follows substantially similar plans available from other major educational producers. It provides for an annual leasing charge over a three-year period, at the end of which time the school takes full title to the films included in the contract. A sample contract form, explaining all details of the plan, may be obtained by writing Young America Films, 18 East 41st St., New York City 17.

A NEW FILM ON TRACK—The United World Films, Inc., 445 Park Ave., New York 22, has recently released a 16-mm. sound (12 reels) film entitled *Track and Field.* The running time of each reel is ten minutes, and the price per reel is $45 or $475 for the series of twelve reels. The film is photographed by a Hollywood cameraman and is completely integrated under the capable technical direction of Boyd Comstock of the National Education Association, former college and Olympic coach. The twelve reels cover every basic event of sprints (2 reels), hurdles, middle distances, distances, relays, broad jump, high jump, pole vault, discus, shot put, and javelin. Much of the footage is in slow motion. The films stress proper conditioning, exercises, demonstrate the teaching fundamentals of each of eleven events, point out the various styles of executing the event, and show many little training devices which develop form and stamina. Each accepted style of execution is illustrated and the reasons for preference under stipulated conditions are made clear. The commentary is given by Bill Slater, a well-known sports announcer.

MASS EDUCATION IN CHINA—Before the headquarters staff of the National Education Association in Washington, D. C., arose an unassuming gentleman named Dr. James Yen of China. In faultless English and with great enthusiasm, he told those assembled about the Chinese Movement for Mass Education which he directs in China. The occasion was the presentation to Chinese teachers of $30,000 of the Overseas Teacher-Relief Fund raised by American teachers.

In glowing terms, Dr. Yen told how, as a volunteer to aid the 200,000 Chinese labor troops in France during the first World War, he had conceived the idea of breaking with old traditions which restricted learning to the artistocratic class and of enabling the peasants, through a simplified group of Chinese characters, to reach a stage of literacy undreamed of. His conviction and success in France rallied others to the cause and introduced the idea in China that the *coolie* with his bitter *(coo)* lot was in reality the strength *(lie)* of the country.

Rather than to make armchair blueprints, for educating vast China, Dr. Yen and his colleagues used a political division of 400,000 population as a laboratory. The pioneering group soon learned that literacy was not enough to raise the living standards of the people. Practical information and assistance in stock breeding, using disease-resistant grains, storing, marketing, borrowing, *etc.*, were needed. An increased force of volunteers made this program possible. Then it was realized that, though the living standards of the units were raised, the people were not living to enjoy the improvements, for there was only one doctor for very 75,000 people. Years would be required to train enough doctors; so a preventive campaign, involving the use of lay citizens to give vaccinations and to perform similar simple duties, was inaugurated. Progress was amazing. But government reform was needed to make the plan complete. People were

ready to assume political responsibilities. Experimentation was carried on in this vast laboratory, and the results in training for democratic participation in the government were very gratifying.

By 1936 over 800 centers had been established. Even during World War II, a province in the hinterland was being concentrated upon. Over 120,000 volunteers have aided 60,000,000 of China's masses. At no time is the cost to the individual greater than twelve cents for the ninety-six-hour literacy course.

Mexico has adopted a similar plan. There it is imperative that everyone who learns to read must teach another. Dr. Yen is acting as consultant for the educational missions of India and the Philippines, which have similar adult mass educational problems, complicated further by caste systems and other problems. But nowhere will those countries find a more zealous and optimistic adviser.

Dr. Yen, who decries cynicism and pessimism, voiced the hope of the world for nations capable, through the active interest of their peoples, by means of education, of living together in peace when he, in closing and in accepting the gift of the American teachers to China's Mass Education Movement, repeated a Confucian proverb: "Under heaven there is but one family."

NEITHER FREE NOR EQUAL—Schools, engaged actively in a program of education against intolerance, will be interested in a series of six half-hour broadcasts given over radio station WCCO of Minneapolis-St. Paul, Minnesota, in an effort to hammer home the appalling fact that there are people who are "neither free nor equal." The scripts of these broadcasts—"The Face of Discrimination," "Discrimination in Employment," "Discrimination in Housing," "The Indian in Minnesota," "The Hate Merchants," and "Meeting the Problem"—have been mimeographed and have had wide distribution. As the *Minneapolis Times* commented: "They are a definite contribution to the cause of intergroup understanding and to a more democratic living pattern for all who call themselves Americans." Schools interested in developing assembly programs around this area of education will find these six scripts, with slight adaptations to meet local situations, excellent material for presentation. They are interestingly written and factually accurate and can easily be presented by a small group of high-school students.

FOR YOUR SUMMER READING—The following is taken from the April, 1948, issue of *School and University*, which is published quarterly by the College of Education, University of Colorado, Boulder, Colorado. We herewith reprint it with the thought that a number of principals might be interested in the list:

What the People Want, by Ellis G. Arnall. J. B. Lippincott Company, Philadelphia, 1948. 286 pp. $3.50.

The Road to Teheran, by Foster Rhea Dulles. Princeton University Press, 1944. 279 pp. $2.50.

People On Our Side, by Edgar Snow. Random House, 20 East 57th St., New York.

Building For Peace at Home and Abroad, by Maxwell Stewart. Harper Bros., New York. 233 pp. 2.50.

Solution in Asia, by Owen Lattimore. Little, Brown & Company. 214 pp. $2.00.

Germany Is Our Problem, by Henry J. Morgenthau. Harper and Brothers, N. Y. 239 pp. $2.00.

While Time Remains, by Leland Stowe. A. A. Knopf and Co., New York. 379 pp. $3.50.

America's Place in the World, by Nathaniel Peffer. Harper and Brothers, N. Y.

Russia, Menace, or Promise, by Vera M. Dean. Foreign Policy Association, New York 16. 96 pp. 35c.

Thunder Out of China, by Theodore White and Jacobee Annalee. William Sloane Co.

Where Are We Heading, by Sumner Welles, Harper Welles, Harper and Brothers, New York. 340 pp. $2.75.

Tomorrow Without Fear, by Chester Bowles. Simon and Schuster, New York. 146 pp. $1.00.

The Shore Dimly Seen, by Ellis Arnall. J. B. Lippincott and Co., Philadelphia. 312 pp. $3.00.

Inside U. S. A., by John Gunther. Harper and Brothers, New York. 1879 pp. $5.00.

Only Yesterday, by Frederick Allen. Bantam Books, New York. 386 pp. 25 cents.

Danger From the East, by Richard Lauterbach. Harper Brothers. 425 pp. $3.75.

The United States and Russia, by Vera Micheles Dean. Harvard University Press, Cambridge, 1947. 321 pp. $3.00.

Or Forfeit Freedom, by Robert Wood Johnson. Doubleday and Company, Garden City, New York, 1947. 271 pp. $2.50.

Swords of Peace, by Preston Slosson and Grayson Kirk. Foreign Policy Association, New York, 1947. 62 pp. 35 cents.

To Secure These Rights. Report of the President's Committee on Civil Rights. Simon and Schuster, New York, 1947. 178 pp. $1.00.

When Peoples Meet, edited by Alain Locke and Bernhard Stern. Hinds, Hayden, and Eldredge, New York, 1947. 825 pp. $3.75.

20th Century Congress, by Estes Kefauver. Duell, Sloan, and Pierce, New York, 1947. 236 pp. $3.00.

Behind the Silken Curtain, by Bartley C. Crum. Simon and Schuster, New York, 1947. 298 pp. $3.00.

Forging a New China, by Lawrence K. Rosinger. Foreign Policy Association, New York, 1948. 64 pp. 35 cents.

Education: Keystone of Peace, by Ralph F. Strebel. Syracuse University Press, Syracuse, New York, 1947. 209 pp. $3.00.

David Lilienthal, Public Servant in a Power Age. by Whitman Wilson. Henry Holt and Co., New York, 1948. 245 pp. $3.00.

Peace or Anarchy, by Cord Meyer, Jr. Little, Brown, and Company, Boston, 1947. 233 pp. $2.50.

The Book Column

Professional Books:

ABRAMS, R. H., editor. *Organized Religion in the United States.* Philadelphia 4: American Academy of Political and Social Science. 1948 (March issue of the *Annals).* 280 pp. $2.00. This volume discusses one of the most powerful and persistent of all social forces—religion. It presents the views of seventeen leaders in this field. It is divided into five major divisions—Our Contemporary Religious Institutions, Relationship to Other Institutions, The Churches and Social Action, Trends and Future Prospects, and Statistics and Bibliography.

BOGUE, J. P., editor. *American Junior Colleges 1948.* Washington 6, D. C.: American Council on Education. 537 pp. $6.50. This second edition of a valuable directory first issued in 1940 reflects the rapid growth and many changes in the junior college movement. Student enrollment in junior colleges in the last eight years has considerably more than doubled; in 1946-47, a total of 449,468 was reported. The 1940 edition of American Junior Colleges contained exhibits for 494 accredited junior colleges; the 1948 edition contains exhibits for 564. A valuable chapter fully describes accrediting standards and practices. A new section on veterans and foreign students is included.

BRUMBAUGH, A. J., editor. *American Universities and Colleges,* Eighth edition. Washington 6, D. C.: American Council on Education. 1948. 1070 pp. $8.00. The spectacular growth of higher education in the United States is reflected in the five editions of *American Universities and Colleges* which have been issued since inauguration by the American Council on Education in 1928. Succeeding editions were published in 1932, 1936, and 1940. War conditions in 1944 made it impracticable to issue the revision which would normally have been scheduled for that year. The unusual length of time between editions and the tremendous changes that have taken place in higher education in the postwar years emphasize the need for up-to-date and authoritative information on what the schools have to offer the plus-million young people now in college or planning to go to college, over and above the normal enrollment of prewar years.

Several of the distinctive and valuable features of this *1948 American Universities and Colleges* are:

1. It is the only complete descriptive directory composed exclusively of accredited universities and four-year colleges in the United States, Alaska, Puerto Rico, and Hawaii.
2. It has full exhibits for 820 institutions—102 of which have been accredited since the 1940 edition.
3. It is up to date, including schools accredited at the December, 1947, meetings of the regional and professional associations.
4. It contains far more information about curriculum, fees, faculty, student aid, housing, *etc.*, than any other volume published.
5. New sections on Veterans and Foreign Students give much specific data needed by these important groups.

6. **Professional education in nineteen fields is discussed by national officers, and 1515 accredited professional and technical schools are listed.**

This publication is an authoritative guide to the accredited institutions of higher education in the United States. For twenty years the various editions of this book have been the standard working tool of college and high-school counselors and administrative officers, students themselves, and all who need authentic information on universities and colleges.

HENRY, N. B., editor. *Juvenile Delinquency and the Schools.* Chicago 37: University of Chicago Press. 1948. 290 pp. $3.50, cloth; $2.75, paper. Emphasis in this area of study is placed on the need of adult understanding of the causes of juvenile delinquent behavior. To this end, the findings of research in both the social and the biological sciences are utilized in discerning analyses of childhood reactions to environmental influences, developmental differences in individual delinquents being appropriately recognized. Consideration is also given to the types of curative and preventive measures that appropriately apply when delinquency is dealt with from the point of view of the needs of youth, rather than in terms of adult sanctions and authoritative control. The relational responsibilities of the school, the home, and the community are realistically clarified by reference to the outcomes of co-operative experiments in a variety of community settings. This Forty-Seventh Yearbook (Part I) of the National Society for the Study of Education should prove a serviceable guide for the remedial efforts of all persons concerned with child welfare, whether viewed from the angle of the aims of education or from that of the general interest in achieving the solution of a perplexing social problem.

HENRY, N. B., editor. *Reading in the High School and College.* Chicago 37: University of Chicago Press. 1948. 382 pp. $3.50, cloth; $2.75, paper. This Forty-seventh Yearbook (Part II) of the National Society for the Study of Education presents an analysis of reading problems at the secondary-school and college levels. It offers specific guidance with respect to the appropriate organization materials and methods of an effective reading program for youth. It presents a desirable perspective in relation to the responsibility of the entire instructional program of the schools for properly contributing to the personal and social development of youth through the selective improvement of reading efficiency and the appropriate guidance of individual reading interests. This volume also contains an index, the constitution of the Society, a synopsis of the proceedings of the Board of Directors, the treasurer's report, a list of the members of the Society, information about the Society, and a list of its yearbooks to date.

RIVLIN, H. N. *Teaching Adolescents in Secondary Schools.* New York 1: Appleton-Century-Crofts, Inc. 1948. 528 pp. $3.00. This book rests on a simple premise. Because it is the teacher who comes in closest and most frequent contact with secondary-school students, it is the teacher who must interpret and apply the principles of modern secondary education if they are to be more than "noble expressions of noble thoughts." In this book the author has tried not only to give the new teacher the help he needs in solving his most pressing problems, but also to develop a point of view toward teaching and toward his students that should help him to solve the countless other problems that have not been discussed. Because

the development of this point of view plays so important a part in determining the teacher's success, the author has addressed the last chapter to the teacher as a person.

The illustrations in this book of the ways in which the principles of effective teaching are applied have been chosen from the wide array of junior and senior high-school activities, but most of them have been selected from areas that are most likely to be familiar to all teachers. When the same principles are important in the solution of many educational problems, as, for example, the need for stimulating active student participation in the learning process and the importance of developing a wholesome teacher-student relationship, the author has not hesitated to refer to the specific ways in which a principle discussed earlier in the book is applied in other situations. The use of cross references, both in the body of the text and in the footnotes, enabled the author to reduce the unnecessary repetition of material discussed elsewhere.

Each chapter includes a well-selected group of questions for study and discussion and a selected bibliography with reference to those sections of the book which deal specifically with the topics treated in the chapter. The bibliographies also have a starred list of books that have been found by students as most helpful.

SCHAFFTER, DOROTHY. *What Comes of Training Women for War.* Washington 6, D. C.: American Council on Education. 1948. 241 pp. $3.00. The experience of approximately one third of a million American women in the military services during World War II will have profound long-range effects upon the position of women as citizens. The glamour of the services, the drama of many individual experiences have been told before and will be told again—but this book will be source material for all time on the facts of the women's branches of the Army, the Navy, the Air Force, the Marine Corps, and the Coast Guard. Here is a concise, explicit statement of how many were trained in each service, how they were trained, how they responded to training (how they took "regimentation," for example), what they thought about their role in war; here are the statistics about how many miles the WASP ferry pilots flew; how many nurses served overseas; how many women doctors were commissioned in the Army. Who were these women? What did they do before they went into the services?

Many of the officers in all the services were formerly teachers—and probably are teachers again. According to their own statements, many of them will take back to the classroom ideas, disciplines, and procedures they learned in the military, because they believe in the effectivness of such training. Others disagree—they are quoted here, too. This book attempts to present the case from the viewpoint of the services and from the viewpoint of those who served.

Books For Pupil and Teacher Use

BARNHART, C. L., editor. *The American College Dictionary.* New York: Harper and Brothers. 1948. 1472 pp. $5.00; $6.00 with thumb index. The editors of *The American College Dictionary* believe that from the point of view of modern linguistic science we must discard the all-too-prevalent assumption that "the dictionary" is the final authority and its pronouncements are valid for all time. Constant change —in pronunciation, in grammatical structure, in word meanings, in words themselves—is the normal condition of every living language. A dictionary, therefore,

is an "authority" only in the sense in which a work in chemistry or physics or botany can be an authority. It records the observed facts in its field completely and accurately. This belief has guided the editors of *The American College Dictionary*. They do not prescribe "correct" usage. Their purpose is to provide information on the *facts* of present-day usage.

In preparing this dictionary, an Editorial Advisory Committee representing the fields of general linguistics, psychology, phonetics, usage, and etymology was chosen to formulate general principles, determine what information should be included, and decide on its presentation. These editors helped to plan the book, advised on the innumerable problems which arose, checked on the carrying out of the basic principles agreed on, and wrote the various prefaces. They were not mere consultants on a finished compilation.

To insure a complete and up-to-date coverage of information, a staff of experts was assembled, consisting of 355 authorities in 316 fields of knowledge. This staff reviewed the selection of entries for their fields to make sure that the basic vocabularies were adequately covered, and they also reviewed and modified the definitions of these terms. In addition to these authorities, a permanent office staff of about fifty worked on the dictionary continuously.

The American College Dictionary is the first abridged dictionary to be prepared by a staff larger than is usually assembled for an unabridged dictionary. It provides the latest record of the current usage of the English language, with special emphasis on its use in this country.

The page size is 7″ x 10″. The binding is washable, heavy-duty black buckram, embossed in leaf and blind, and strongly reinforced for long-time use. The paper used in the book was specially made, with a high titanium content for maximum opacity and luster. This dictionary contains 132,000 entries, 1,600 illustrations and spot maps, and 1,000 groups of synonym studies.

For the foundations of this dictionary, the editors secured the rights to use *The Century Dictionary* and *The New Century Dictionary*, and to use definitions and sentences from the *Dictionary of American English*. These outstanding products of American lexicography were utilized for basic words and were supplemented by the scientific and technical vocabularies prepared by the staff of experts, as well as by the intensive research work carried on by the permanent dictionary staff.

BRADY, S. G. *Caesar's Gallic Campaigns*. Harrisburg, Pennsylvania: The Military Service Publishing Co., 100 Telegraph Bldg. 1947. 256 pp. $2.50. A running account of this much-used book is presented by the author in order to give a chapter-by-chapter story of the commentaries. This free translation is extensive and precise and is written in an easily read and interesting style. There are maps, illustrations, and interpretive notes relating to the mechanics and minutiae of Roman warfare and military organization. Its Foreword is a comprehensive record of Caesar's life, with fascinating personal details. The author himself is a military man (29 years of service) and a Latinist of distinction.

BROSNAC, ETHEL. *How to Make Money in Commercial Art*. New York 16: Robert M. McBride and Co. 1948. 222 pp. $2.95. The book discusses such areas as opportunities, job hunting, free lancing, fashion, illustration, layout, lettering,

cartooning, methods of reproduction, breaking into business, and other related topics.

CHRIST, H. I. *Winning Words.* Boston 16: D. C. Heath and Co. 1948. 360 pp. $2.00. A basic book which combines extensive exercises in vocabulary building with a fundamental study of words in action, *Winning Words* aims to help students understand other subjects more easily by helping to build a vocabulary significant for our times and demonstrating the need of learning how words actually function in our daily lives. Part One is devoted to exploring the word resources of our language: the meanings of words essential to the vocabulary of an educated person, their origin and historical development, the varied ways of using them in speaking and writing, the use of dictionaries, thesauruses, the books of synonyms. Part Two puts in simple form the results of the latest language studies in how meanings of words shift and develop under the influence of our inner desires and social environment. The emphasis is on words in relation to the job they have to do.

COLEMAN, R. V. *The First Frontier.* New York: Charles Scribner's Sons. 1948. 474 pp. $3.75. In this fast moving narrative, the unwieldly and often confusing facts and meanings of early American history are knit into a single volume. Why did the first settlers come? What sort of people were they? What did they do? One meets them all. The whole panorama of American settlement—from New Mexico to Maine, from Florida to the Great Lakes—passes before the reader. Magistrates and farm hands, preachers and servants, traders, and Indians—all have their say, all act their parts—and the total is what made America. The story is sometimes tragic, sometimes humorous, sometimes inspiring, sometimes shocking, but always human.

COLVER, A. R. *Joan, Free Lance Writer.* New York: Julian Messner, Inc. 1948. 181 pp. $2.50. This is the story of Joan just out of college struggling to help with the family finances and of David just out of the army helping to rejuvenate his father's glass business ruined by the war. The background for this romance is the average American middle-sized town with its friendly neighbors, its intimate groups of young people, and its typical family life.

CONSIDINE, BOB. *The Babe Ruth Story.* New York 10: E. P. Dutton and Co. 1948. 250 pp. $3.00, cloth. The greatest baseball figure of all time now tells his own life story! Millions of words have probably been written about Babe Ruth since he first donned a major league uniform in 1914, but this is the first time the Babe himself has told the incredible story of his sensational career. Babe Ruth speaks about his unhappy childhood honestly, frankly, and with dignity, realizing how lucky he was in having Brother Matthias as his mentor during those years. Babe Ruth's sense of gratitude for the tremendous affection which American children have for him is evidenced in his desire to help other boys who need help as he once did. This is what gave inspiration to the establishment of the Babe Ruth Foundation, Inc., which he tells about on pages 238-239. His baseball career began when the Baltimore Orioles signed him up as a rookie pitcher. They soon discovered that they had a real find. Anyone who loves baseball will thrill reading the exciting descriptions of the games he played while at his peak. Every

chapter is filled with entertaining human incidents and the breathtaking events of big league baseball.

Besides this cloth edition, the company has a $1.00 paper-covered edition, approximately 8¼" by 10¾", which contains the same text matter but only ninety-six pages in length. The illustrations, instead of being scattered through the book, completely cover the inside covers of the book. There are also in it two cartoon pages.

COOK, L. B.; LOBAN, WALTER; and STAUFFER, R. M. *People in Literature.* New York: Harcourt, Brace and Co. 1948. 698 pp. $2.92. *People in Literature* is the tenth-grade volume of the *Pageant of Literature* series. It is designed to give form, substance, and purpose to the tenth-grade literature course which heretofore has proved so difficult to organize. It provides for appreciation of literature as an art, and it presents literature as a record of human experience. Its distinctive purpose is to promote the growth of the high-school student as an individual and a member of society. It is a book of reading units in which one selection is related in subject matter to the next. The units in this book may be read in any sequence that seems desirable. The only exception is the last unit, "The Challenge of the Future," which was designed as a conclusion to the entire book.

The eight units in *People in Literature* were selected for their interest and importance to young people and to society. They deal with fundamental personal and social values. Preliminary studies in the current National Council curriculum project identify four outstanding characteristics of young people: (1) desire for independence from adult control; (2) a sense of group loyalty; (3) awareness of self; and (4) fear of not succeeding. These Council studies also set forth a number of personal and social values to which the English course must contribute. The units in *People in Literature* acknowledge these charactertistics and contribute to certain of these personal and social values.

DALZELL, J. R., and TOWSEND, GILBERT. *Masonry Simplified.* Volume I, *Tools, Materials, Practice;* Volume II, *Practical Construction.* Chicago: American Technical Society, Drexell Avenue at 58th St. 1948. Vol. I, 379 pp. $4.50; Vol. II, 417 pp., $5.00. The first book, Volume I, contains the background and related information essential to the master craftsman. The authors have carefully analyzed the practices of the trade and presented them in practical form. In addition to presenting a complete discussion of the tools, materials, and practices of masonry, this book also provides the "know-how" of the trade—information previously available only by word-of-mouth from top-notch workmen—information they have taken years to acquire.

Volume II shows how masonry work is put together. A large number of original drawings have been included to clarify each point that might be difficult to visualize. Standard practices are described for every job that a mason might be called upon to perform. The techniques underlying the design of a structure as well as the factors controlling good construction practices are emphasized in this book. In easily understood language, these authorities have presented well-tested methods and rules that affect the quality of masonry construction.

The preparation of these books was stimulated by the many requests from the trade for a modern, practical discussion of modern masonry construction, and

they were developed with the idea of providing the maximum assistance to apprentices and tradesmen.

DANNIEL, BENJAMIN. *Jesus, Jews, and Gentiles.* New York: Arco Publishing Co. 1948. 239 pp. $3.00. Why, in our time, were six million Jews tortured, maimed and killed? Why for nearly 2,000 years have the Jews been maltreated in Christian lands. The author of this book tries to show by quotations from the New Testament how these acts have come about and how radically thinking must change if anti-Semitism is to be removed.

DARINGER, H. F. *Mary Montgomery, Rebel.* New York 17: Harcourt, Brace and Co. 1948. 222 pp. $2.50. This is a true story of the Civil War as experienced by Mary Montgomery who was fourteen when it began. With great creative skill, the author has pictured vividly the gaiety and charm of prewar plantation life, the grim days of struggle, and finally the beginnings of a new way of life.

DUMOND, D. L.; DALE, E. E.; and WESLEY, E. B. *History of United States.* Boston 16: D. C. Heath and Co. 1948. 867 pp. $3.20. This book is organized around five continuous themes: (1) Migrating and Settling, (2) Making a Living, (3) Living Together, (4) Building a Government, and (5) Rising Among Nations. These five themes are the names of the five chapters in each of the seven epochs. Thus the title "Making a Living," for example, appears seven times as the title of a chapter. There are only five chapter titles in the entire book. This book organizes history topically (or thematically) within each successive epoch. The authors have developed a socialized history by devoting the first three chapters of each epoch to the story of how people migrated, how they made a living, and how they lived. Thus social elements are not infused into the narrative; they are themselves the main part of the story.

The numerous pictures help to tell the story. Each is placed near the account of the event to which it relates. Explanatory legends help the student to interpret the picture and to relate it to the textual account. The student *Study Guide* also contains items about the pictures. Most of the maps were drawn for this book by draftsmen who carried out the plans of the authors. They show simply and clearly the main points. The *Study Guide* contains special sections dealing with the maps. The authors have prepared challenging questions and workable projects. They present numerous references to sources and secondary accounts. Believing that teachers prefer to make their own review questions, the authors have omitted factual questions. Review questions are generously provided, however, in the student *Study Guide.*

This book provides systematic treatments of various events from different viewpoints. Thus the Gadsden Purchase is treated in one chapter as a step in westward expansion. In another chapter it is viewed as a diplomatic event. In one setting Oregon is treated as a center of a diplomatic battle; in another chapter it is described as a land of opportunity for settlers; in a third connection it is treated as an area out of which territories and states evolve. Thus the authors provide a review of the major idea by treating it from a different viewpoint, by supplying additional materials.

HARRIS, F. L., and KAUFFMAN, T. E. *Young Folks at Home.* Boston 16: D. C. Heath and Co. 1948. 456 pp. $2.60. What better aim can the homemaking teacher

have than to teach her pupils how to be happy and useful in the *home?* Boys as well as girls are home members of one status or another throughout their lives. This book tells them in their own breezy style why happy home environment is essential and how it can be achieved. It meets them on their own level with answers to their personal problems, to their questions about clothing and food, and to their desires for beautifying their own rooms, personalities, and appearances.

HART, W. W., and GREGORY, M. C. *General Mathematics in Daily Activities.* Boston 16: D. C. Heath and Co. 1948. 414 pp. $2.00. This is a text which offers a course in the quantitative thinking that occurs in the many activities of daily living. Designed for those pupils who do not desire to take the customary sequential courses in secondary mathematics, it provides continued instruction and application in arithmetic and in selected, useful parts of intuitive geometry, elementary algebra, and one phase of numerical trigonometry. Realizing that pupils increase their skills while using mathematical processes in natural settings, the authors have not begun their text with a formal review of arithmetic. Diagnostic tests are provided where and when they are needed in the course and re-instruction on the fundamentals of arithmetic is included in the back of the book for those pupils who require remedial instruction. Problems and exercises provide a maximum amount of learning by doing.

This text is a thorough revision of the authors' *Socialized General Mathematics.* The organizational characteristics of the original text are retained in the revision. Material in the revised edition is new in many respects, and two new chapters have been added. Statistics, an entirely new chapter, treats the three fundamental averages—the arithmetic mean, the median, and the mode in an elementary manner. *More Vocational Problems,* the other new chapter, includes problems for nurses, problems of apothecaries' weights, and airplane problems. All prices used in the text are as nearly current as possible, and the facts and statistics are of as recent date as can be secured. Entirely new illustrations are provided to accompany new material, and many of the cuts from the first edition have been redrawn to provide greater clarity.

HOGG, J. C.; ALLEY, O. E.; and BICKEL, C. L. *Chemistry, A Course for High Schools.* New York 3: D. Van Nostrand Co. 1948 revised. 565 pp. $2.88. The book is divided into three parts. Part I is largely descriptive and includes chapters on coal and petroleum; Part II is theoretical and emphasizes the ionization theory and atomic structure; Part III deals with the metals, organic chemistry, plastics, rubber, and foods. For convenience, each part is subdivided into two units. Each chapter is amply supplied with questions and also with problems divided into groups A and B. The A group includes the simpler problem and the B group, the more difficult problems. Answers are given to one third of the problems as an aid to the student. Review exercises are supplied at the end of each unit.

The theoretical treatment, though not unduly stressed, is adequate for a clear understanding of the principles involved in the industrial processes. Descriptive chapers, which make easy reading, are freely interspersed with theoretical material. Not only do the descriptive chapters deal with important chemical processes, but they also all contribute to the general theme intended to show the remarkable growth of American industries within the past thirty years, an achievement that has received too little recognition in our science courses.

The experiments and some other paragraphs are written in small type. These paragraphs are either fairly difficult theoretical parts, or they concern the historical development of industry. They can be omitted without loss of continuity in the text. This 1948 edition contains new sections on nuclear fission, new material on detergents and antibiotics, and the incorporation of new developments and discoveries all the way through the text. The outstanding features of the first edition have been carried over into the new book. Some of these are the emphasis on industrial applications; an unusual flexible organization; and a wealth of questions, problems, demonstration experiments, and reviews.

JORDAN, P. D. *The National Road.* Indianapolis 7: Bobbs-Merrill Co. 1948. 412 pp. $4.00. The story covers almost two centuries, from the time young George Washington rode west to the Forks of the Ohio to treat with the French posts there up to today when a succession of cars and trucks whirl over U. S. 40. The road was a first western experiment in Federal highways and ran straight into a Congressional fight over state rights. The road was the American dream, with a whole people, afoot and on horseback, in stagecoach and Conestoga wagon, moving westward where a man could stand up on his own land and be free. The road was a large artery of commerce. Great six-horse wagons carried tons of produce to the eastern seaboard and manufactured goods to the frontier. Herds of stock plodded through the dust on their way to market. Drivers lashed their horses as mail coaches swayed and jolted at full speed.

KAINZ, L. C., and RILEY, O. L. *Exploring Art.* New York 17: Harcourt, Brace and Co. 1947. 293 pp. $3.75. From a general appraisal of the study of art and its meaning and structure, the authors progress to a discussion of specific fields. "Experiments in Color," "Crafts," "Industrial Design," and "Community Planning" are among the chapters included. Over two hundred illustrations from the fine arts field and from commercial art are reproduced in color and in black and white.

LANGDALE, A. B.; BLUMENTHAL, J. C.; and WARRINER, J. E. *English Workshop: Grade Twelve.* New York 17: Harcourt, Brace and Co. 1948. 256 pp. 96c. This workbook provides a concurrent exercise on usage, vocabulary building, and basic reading skills. Lessons 1 and 2 are an introduction to the whole year's work. Lesson 1 is a review of all grammar terms and definitions. Lesson 2 introduces the vocabulary program. Lessons 3 through 67 contain the work on usage, vocabulary, and reading skills. Lessons 68 through 73 contain a composition program for the entire senior year. The vocabulary and reading exercises are identical in form with those found in standard placement tests, intelligence tests, New York Regents and College Board examinations. Each chapter ends with a review lesson covering the chapter content and an achievement test covering the work of all preceding chapters. A separate 32-page pamphlet of mastery tests furnished with each copy of the book contains chapter tests, cumulative achievement tests, and a 7-page standardized vocabulary test.

LENGYEL, EMIL. *Americans from Hungary.* Philadelphia 5: J. B. Lippincott Co. 1948. 319 pp. $4.00. Although the folk memory of Hungary is oriental, beginning when Magyar hosts cross the Carpathians in the ninth century A. D., the history of the Hungarian people has many parallels with our own. Spurred by their fight for independence in 1848, when Lajos Kossuth led an unsuccessful revolt against the Hapsburgs, waves of Hungarians began to come to America, reaching a high

point in numbers shortly before World War I, when nearly two million immigrants had reached these shores to settle mostly in Ohio, New Jersey, New York, and Pennsylvania. These people, as individuals and as groups, played vital roles in American industry, in the American theatre, in music, literature, and painting, and in the expanding motion picture industry.

Budapest-born Emil Lengyel tells the story of these Americans from Hungary, giving an analysis of their antecedents, weaknesses, strong points, contributions, and temperaments. With warmth and humor, he shows how they lived, what they thought, and how courage, character, and talent carried them from the periphery of American life to its center.

LOMAX, JOHN and ALAN. *Folk Song: U.S.A.* New York 16: Duell, Sloan, and Pearce. 1948. 423 pp. $6.00. This collection of 111 American ballads is the story of a people building its country—their work, laughter, loves, troubles, tragedies, jokes, and sentiment. In making the collection, the authors traveled for more than a half century over miles of prairie, mountain roads, and backwood in order to listen to the songs of the lumberjack, the Ozark grandmothers, banjo-pickers, blues singers, harmonica players, hoedown fiddlers, cowboys, and a multitude of other persons. In addition to the words and music, this book provides a background for each song. Each section has an introduction, folk tales, tall yarns, and adventures, giving the social setting and the local color for each of the songs and ballads.

MALVERN, GLADYS. *Your Kind Indulgence.* New York: Julian Messner. 233 pp. $2.50. This is a love story of a proud young girl, striving for a career in New York's first theatre, when the city was a bustling town of 20,000 and Hanover Square was the residential district. Susanna Gage was just sixteen when she set sail for America in the year 1778 to join the John Street Players in New York.

McPHERSON, WILLIAM; HENDERSON, W. E.; and FOWLER, G. W. *Chemistry At Work.* Boston 17: Ginn and Co. 1948 revision. 688 pp. $2.88. This book is composed of two introductory chapters, thirteen units of work, four appendices, a glossary, an index, reference tables, and a table of the elements. It treats chemistry as the outgrowth of observation, experiment, formulation of laws, and proper use of theories, and as a continuously growing body of knowledge. It is profusely illustrated and is written in language that is easy to understand and interesting to read. Test questions, exercises, and summaries are included with each of the 53 chapters.

MILLER, H. L. *On Stage for Teen-Agers.* Boston 16: Plays, Inc., 8 Arlington St. 1948. 442 pp. $3.50. Here are twenty-two gay, modern comedies, all of which can be successfully produced without elaborate staging or costumes. In addition to being ideal for schools and amateur drama groups, they make fascinating reading for teen-age boys and girls. Appearing originally in the monthly issues of *Plays*, the drama magazine for young people, all the plays in this book have been produced with great success in schools, recreation centers, clubs, and churches throughout the country. Included are twelve general comedies and ten holiday comedies. Holidays represented are Halloween, Thanksgiving, Christmas, Lincoln's and Washington's birthdays, St. Valentine's Day, Easter, and Mother's Day.

MILLER, J. D. *A Wish for Tomorrow.* New York: Dodd, Mead and Co. 1948. 240 pp. $2.50. One summertime, four girls share a wonderful adventure founded on the idea that "Friendship builds a better world." They had never met before they attended the International Camp for Senior Scouts and Guides. How these four girls with such diverse backgrounds establish firm friendships as they work, laugh, play, argue frankly, and face danger bravely together is presented with authenticity and understanding; for, through the kindness of Girl Scout officials, the author was invited to stay at the Thirty-fifth Anniversary International Camp at Barree, Pennsylvania. Wearing the camp uniform and taking a normal part in all activities, she gained a sure and natural insight into the beliefs, fears, and future hopes of girls like these four, along with eager young representatives from far-flung lands, brought together by International Girl Scouting.

MILLER, MERLE. *That Winter.* New York 19: William Sloane Associates. 1948. 297 pp. $3.00. *That Winter* is the story of a generation whose members have had, like their fathers and mothers, a violent introduction to the business of living. Peter, Ted, and Lew lived together in New York City during the late fall and early winter of 1945. They had just been discharged from the army, and *That Winter* is the story of their immediate reaction to the war that had been won. In many ways, they were not typical of most of the fourteen million veterans; they didn't have to worry about jobs, and they had a place in which to live. But, in more basic ways, what happened to the three of them and people they knew was happening all over the country.

MINER, JACK. *Jack Miner and the Birds.* (New enlarged memorial edition). Chicago: Reilly and Lee Co. 1929. 319 pp. $3.50. From the thousands of wild ducks, geese, and swans, which visited his sanctuary in the spring and in the fall, Jack Miner learned, in a few years, more about the habits and migration of wild fowl than have all the scientists of all time. Some of the remarkable things he has learned are related in *Jack Miner and the Birds.* Mr. Miner has caught and banded hundreds of wild ducks and geese. The bands have been returned to him from Eskimos and missionaries living in the far north and from hunters on the southeastern seaboard of the United States. The record showing the wanderings of Jack Miner's feathered friends is as interesting as any piece of fiction. Jack Miner is a man who has worked magic. In the spring and in the fall, tens of thousands of people (15,000 in one day) visit his bird sanctuary. His book gives you a personal and intimate introduction to his bird friends.

O'NEILL, HESTER. *The Picture Story of the Philippines.* Philadelphia 6: David McKay Co. 1948. 50 pp. $2.50. This book tells of the hundreds of things boys and girls eight to twelve years old will enjoy learning about the Philippines. Interestingly and attractively illustrated, the book will appeal not only to young readers but also to adults as well. It is the story of a nation's struggle for independence as a nation as well as intimate glimpses of life in this group of 7,083 islands in the Pacific.

PARKE, M. B., and BRISTOW, W. H. *Practices and Problems in Handwriting.* New York: Board of Education. 1947. 96 pp. The purpose of this publication is to help to stabilize procedures in handwriting and to show the place of handwriting instruction in the program of education as it is now being developed in the schools

of New York City. It points out the findings of a recent investigation in handwriting practices both in New York City and in the country at large; indicates what seem to be the best procedures in the teaching of handwriting; and tries to assist teachers and supervisors in gaining deeper insight into issues that require further study and that may eventually lead to a modification of the program outlined.

Publications of Bantam Books, Inc., 1107 Broadway, New York 10, available at 30 cents each:

No. 201. *Trail South from Powder Valley* by Peter Field. 149 pp. A western.
No. 202. *The Tenderfoot* by W. H. B. Kent. 181 pp. A western.
No. 251. *Relentless* by Kenneth Perkins. 182 pp. A western.
No. 301. *Headlined for Murder* by Edwin Lanham. 214 pp. A mystery.
No. 302. *The Fabulous Clipjoint* by Frederic Brown, 181 pp. A mystery.
No. 303. *Siren in the Night* by Leslie Ford. 184 pp. A mystery.
No. 350. *Your Red Wagon* by Edward Anderson. 181 pp. A novel.
No. 352. *Miss Agatha Doubles for Death* by H. L. V. Fletcher. 182 pp. A mystery.
No. 400. *Winter Meeting* by Ethel Vance. 183 pp. A novel.
No. 404. *Hiroshima* by John Hersey. 116 pp. The story of six survivors.
No. 451. *Love is the Winner* by Natalie Shipman. 147 pp. A novel.
No. 453. *Five Nights* by Eric Hatch. 181 pp. A novel.
No. 501 *Bob Feller's Strikeout Story*. 242 pp.

PATMAN, WRIGHT *Our American Government: 1,001 Questions and Answers on How It Works*. Illustrated and indexed. Chicago 1: Ziff-Davis Pub. Co. 1948. 154 pp. Cloth, 2.75; Paper, $1.50. Paraphrasing Mark Twain on the weather, everyone talks about democracy but few do anything about it. However, Wright Patman, Congressman from the Tenth District of Texas for the last twenty years, is an American who has done something about it. In his *Our American Government: 1,001 Questions and Answers on How It Works*, he has provided the best arsenal of information on how the republic functions that has appeared in many a year. It is not surprising that this should be so, for *Our American Government* offers a concrete defense of the American way of life. As such, it is ideally suited for classroom work and makes a useful reference volume for citizens of all ages.

Our American Government was written largely "by request." For many years Congressman Patman answered inquiries from his own constituents back home on the different operations of the government. Realizing that many citizens who did not write in also needed such information, he finally compiled 138 questions and answers and in 1938 inserted them into the *Daily Congressional Record*. This first group of questions and answers was subsequently reprinted as a public document. Continued inquiries caused Mr. Patman to expand his basic list. In each instance the result was reprinted and distributed through the Government Printing Office. In six editions, over one million copies of these little pamphlets were sold.

Impelled by the continued flood of requests, Mr. Patman set out to assemble 1,001 questions. With a staff of researchers and the resources of the Library of Congress at hand, he toiled over the project for more than a year, combining our history from the *Magna Charta* to the Atomic Energy Commission. The result is an authoritative, nonpartisan compendium of valuable data not easily found

elsewhere. The questions and answers are so arranged to bring the entire story of our American government up-to-date, including the sweeping changes as a result of the Legislative Reorganization Act and the streamlining of the National defense system. To make this work available to as large a public as possible, the publishers issued the book in both a paper-bound as well as a cloth-bound edition. Both editions contain facsimiles of several of the Freedom Train documents as well as graphic charts of the functions of important departments and commissions of the government.

Because of Congressman Patman's standing as a legislator, the bound galley proofs of his book were read by leading national figures. For the first time in American publishing, a single volume bears the endorsement of President Truman, Bernard M. Baruch, Dwight D. Eisenhower, Robert A. Taft, George C. Marshall, Joseph W. Martin, Jr., and others of equal stature.

PIERCE, W. G. *Youth Comes of Age.* New York 18: McGraw-Hill Book Co. 1948. 410 pp. $2.60. This text for high-school student use deals with important experiences and problems confronting the teen-ager growing into maturity. It makes a direct, personal approach to the actual problems of high-school youth. The problems that have been included for discussion are the results of the judgment of experienced counselors and the help of more than 3,000 high-school boys and girls through classroom discussion over a period of thirteen years. Materials on boy-girl relationships, selecting a mate, factors that constitute a happy marriage, the effect of family experience on patterns of behavior, the importance of happy association among family members, and many other equally important problems of youth are included within this text. The book can be used as a text, for supplementary reference for a unit of a few weeks' duration, or for an entire semester course. It is adaptable to the needs of discussion groups of young people of high-school age.

RICHARDSON, L. C. *Puerto Rico Caribbean Crossroads.* New York 17: T. J. Maloney, Inc., 420 Lexington Ave. 1947. 144 pp. $3.50. This book was produced under the sponsorship of the Board of Publications of the University of Puerto Rico. The large number of photographs included in it were made by C. E. Rotkin, now chief of the Photographic Division of the Office of Information for Puerto Rico in San Juan. The book in pictures and text presents authentic information about our neighbor, Puerto Rico. It is a fair sampling, a cross section of life as it is lived in Puerto Rico with its beauty, its joys, and its attainments, as well as its obverses. Here is the story of the homes, the diet, the occupations, the industries, the health, the education, the government, and other factors of the people in this island.

RITCHIE, J. W. *Biology and Human Affairs,* New Edition. Yonkers-on-Hudson 5: World Book Co. 1948. 832 pp. $3.40. This book acquaints the student with the concrete facts of biology and at the same time organizes these facts in accordance with the principles and wide ideas that give them meaning. The point of view is practical. The treatments of plants, insects, and heredity are pointed to their application in agriculture. The studies of the mammalian body, parasitology, and nutrition give an understanding of the human body and the procedure for keeping it in health. The units on fundamental life problems, on behavior, on various types of animal communities lead to a study of human living from a biological

point of view. The units are in the main independent of each other, making possible a flexible course which provides for the differing interests and abilities of individual pupils. Because of this abundant and varied material, the course is adaptable to regional and seasonal differences, as well as to local school conditions and courses of study. Requirements for college entrance are fully covered. The book is composed of nineteen units, each having illustrations, a comprehensive test, a list of activities, and selected references for further reading.

SCHORLING, RALEIGH; CLARK, J. R.; and SMITH, R. R. *Modern-School Geometry.* Yonkers-on-Hudson 5: World Book Co. 1948. 448 pp. $1.88. This new edition meets the requirements of the best contemporary teaching in the field. The authors have translated into teachable classroom practice the recommendations of the Second Report of The Commission on Postwar Plans (National Council of Teachers of Mathematics). The emphasis is placed on developing logical thinking. Preliminary preparation guides the student naturally into the new work. He gains an understanding of hypothesis and conclusion, acceptable reasons for proof, as well as formal deduction and valid conclusions.

The work is organized around key concepts and fundamental principles. The first unit is concerned with the material of geometry, the use of reasoning, nature of proof, and developing formal proof. Then follow units on direct proof, indirect proof, algebraic proofs, geometry of position, numerical geometry, and finally a glimpse into analytic geometry. The fundamental arithmetic and algebra of the lower grades are kept alive by means of a series of exercises at the end of the book called "Maintaining Basic Meanings and Skills." These are arranged in short groups so they may be taken at any time the teacher desires. In addition, arithmetic and algebra are constantly used in geometric proofs and exercises. Wide experience shows that this strengthens the student's work in geometry.

STAPP, A. D. *Mountain Tamer.* New York 16: William Morrow and Co. 1948. 220 pp. $2.50. A photograph showed a mountain in the Pacific Northwest, green-timbered on the lower slopes, capped with snowfields shining in the sun. Bob studied it. He wanted to go on that trip with the Climbers Club. He was an athlete, the school's best basketball player, but high places bothered him; and he couldn't bring himself to tell anyone, not even the keen-eyed chemistry teacher who was the club's adviser. So Bob went along on the trip. There were bad moments, but he got by. Next time out it went even better. Then he attempted a really difficult climb alone and came back defeated—both by the mountain and by his own handicap. It was the chemistry teacher who helped to straighten him out, but it was Bob who fought and mastered his fear when his own life was not the only one at stake.

THORNE-THOMSEN, GUDRUN. *In Norway.* New York 17: Viking Press. 1948. 159 pp. $3.00. This book shows the way Norwegians live, the way they cherish their traditions, train their children, expect every citizen to enjoy an active interest in community life, run the state for the people and not the people for the state, and use every resource of their delightful country for the benefit of the people.

TREAT, R. L. *Walter Johnson, King of the Pitchers.* New York: Julian Messner. 1948. 192 pp. $2.75. This is the story of Walter Perry Johnson, one of the greatest pitchers in the history of baseball. Sports writers began calling him *The Big Train* in 1910 because at that time this was the fastest thing known. He was also

called the *Kansas Cyclone* and the *Humboldt Thunderbolt*, but to most people he was just plain Walter.

UPDEGRAFF, F. M. *Blue Dowry.* New York 17: Harcourt, Brace and Co. 1948. 271 pp. $2.75. Set in New England in the period of political unrest and tension just before the Revolution, this is the story of a girl's gradual growth toward maturity. Elizabeth Brandon's father was an Englishman, and Advocate of the Crown in Massachusetts; her mother came of old Connecticut stock. Elizabeth could not reconcile the colonial point of view with that of the British government. Recently returned from a happy visit to England, she felt that the demonstrations of the patriots against the stamp tax were unnecessary outbursts of a disloyal, ignorant rabble. She failed to see the principles involved. She resented bitterly, therefore, her parents' decision to leave her with Grandfather Harlow in Connecticut when her father was recalled by his government to England.

VERRILL, A. H. *Strange Prehistoric Animals and Their Stories.* Boston 8: L. C. Page and Co. 1948. 280 pp. $3.75. In this book we are taken back through millions of years to the very beginnings of animal life. Under the author's expert guidance, the reader meets the weird ancestors of such well-known animals as horses, lions, tigers, and elephants, ranging in size from not much larger than toys to many-ton mammals. Descriptions of the comical or grotesque appearance of these and many other animals which once roamed the earth are enlivened by the author's clever, detailed drawings and accounts of the probable habits and characteristics of the beasts.

WILLIAMS, J. E., and HANNA, P. R. *Global Geography.* Chicago 5: Scott, Foresman and Co. 1948. 35 Workbook Lessons (96 pp.) and 8 Supplementaries. Single sets (Workbook and 8 Supplementaries), $2.40 list per set; cartons containing ten sets each, $20.00 list price. This is a Workbook-text in world geography, accompanied by die-cut Supplementary Materials for making globes and various kinds of map projections. It is prepared for grades 7-12. *Global Geography* offers a thorough-going course of study in the new geography that is taking such hold today. In addition, it is planned to help all students understand the nature and use of the globe and of various kinds of projections, by guiding them in the construction and study of their own globes. There are eight separate sheets of die-cut Supplementaries. Easy-to-follow directions and sketches in the workbook tell and show students how to put them together and make them "work." *Global Geography* can be used as a basic course in world geography or to supplement such a course. It can also be used to project some of the new geography into traditional commercial and economic geography courses and to strengthen world history and social studies courses. It provides training in the use of globes and maps—training that is basic in building understanding of the air world today.

Pamphlets for Pupil and Teacher Use

Accident Facts. Chicago 6: National Safety Council, 20 N. Wacker Drive. 1947. 96 pp. 50c. A source book of data on school, home, motor vehicle, public, farm, and occupational accidents for 1947. Compares current figures with past figures graphically. An aid to meeting local safety problems.

Adventures in Human Relations. Washington, D. C.: Association for Childhood Education, 1201 Sixteenth St., N. W. 1948. 36 pp. 50c. Warm, human anecdotes, iden-

tified with principles of human relations, that show how everyday happenings travel the road toward better human relations.

Apprenticeship Credit for Previous Experience. Washington, D. C.: Apprenticeship-Training Service, U. S. Dept. of Labor. 1948. 28 pp. Based on a study of practices in 39 apprenticeship programs in various trades and localities. States principles which should govern granting of credit. Suggests procedures, devices, and forms for evaluating previous experience.

ASHWORTH, M. H. *Puerto Rican Puzzles.* New York 10: Friendship Press, 156 Fifth Ave. 1948. 48 pp. 65c. The puzzles of health, education, living conditions, economics, racial differences, and *juracan* (hurricane) in the island of colorful history and geography. Poses the challenge of the church in Puerto Rico. Presents Puerto Rican personalities—musicians, sportsmen, political characters, and religious leaders. Illustrated with photographs and drawings by Ursula Bostick.

Avon Old Farms. Avon, Conn.: Provost, Avon Old Farms. 1948. 42 pp. A catalog of a school which holds to the cultural traditions of old, yet is concerned intimately with the intellectual, moral, and spiritual growth of each individual boy. Preparatory mainly, but includes terminal studies. Full advantage of the proximity of cultural centers is taken.

The Books of Needs. Paris, France: Director General, UNESCO, 19, Ave. Kleber. 1947. 112 pp. Illustrated. Sets forth needs of fifteen war-devastated countries in education, science, and culture.

BOULWARE, L. R. *How Big Is Our Job?* Schenectady 37: General Electric Co. 1948. 19 pp. An address by the vice president in charge of employee relations of the General Electric Company before the Personnel Conference of the American Management Association in Chicago on February 17, 1948, on the importance of correcting damaging economic and other misinformation in the minds of employees and public, and on the efforts of GE in this direction.

BROCKWAY, T. P. *Dollars, Goods, and Peace.* New York 16: Foreign Policy Assn., 22 E. 38th St. 1948. 64 pp. 35c. Views the U. S. as the world's dominant economic power and, as such, the determinant of war or peace in our time. Surveys postwar economic troubles that underlie the world's political cleavages. Evaluates the support given the UN economic agencies by Russia and the United States.

BRYAN, R. C. *Seven Rules of Clear Thinking.* Kalamazoo, Michigan: Western State High School. 1947. 78 pp. A clear-cut definition of thinking for use by students and teachers.

CRAKES, C. R. *Suggestions for Effective Techniques of Utilizing Motion Pictures in the Classroom.* Chicago 14: De Vry Corporation, 1111 Armitage Ave. 6 pp. 1948. Free. Concise and practical bulletin on the use of films as an aid in the classroom.

DAVIS, F. J., and STOLL, GEORGE. *Speaking to Youth.* Louisville 2, Ky.: Paul's Workshop, 241 E. Walnut. 1946. 42 pp. 25c. A booklet of suggestions for those who address school bodies in order that they might be imbued with "a sense of mission" in giving significance to the lives of the youth who listen. Delineates the mechanics of the plan to secure the best speakers and the greatest benefits therefrom through school and community co-operation.

DURRANCE, C. L., JR., *et al. School-Community Co-operation for Better Living.* Gainesville, Florida: Project in Applied Economics, University of Florida. 1947. 299 pp. 35c. Presents examples of what some community schools benefited by the Sloan Foundation have done to improve the economic level of living by studying the basic economic needs of the community and extending the activities of the classroom into the home and community to meet those needs and improve living conditions from such angles as food habits, housing, and clothing. Emphasis is placed on total faculty planning.

Education. New York 19: Building America, 2 W. 45th St. 45c, single copy; $3.00 per set of 8 issues. Historical development of free compulsory education in America. Recognition that the schools belong to the people and that their understanding and support are essential to their progress. A selected bibliography.

An Educational Philosophy for Exceptional Children. Langhorne, Pennsylvania: The Woods Schools. May, 1947. 53 pp. Proceedings of the spring conference on education and the exceptional child of the Child Research Clinic of the Woods Schools. Recognizes the principle of the dignity of the individual and his right to develop his potential abilities to their fullest capacity.

Educational Press Bulletin. Springfield, Illinois: State Supt. of Public Instruction. March, 1948. 24 pp. (7 issues annually.) Contains an article entitled "Plans for a Secondary-School Curriculum" by State Supt. Vernon L. Nickell along with articles by other state school officials on the Illinois programs for discovering the educable mentally handicapped, sight saving, physical education, pupil transportation, home-room guidance, school lunch, and pensions for nonteaching personnel.

Foundation for Safe Living. Chicago 6: National Safety Council, 20 N. Wacker Drive. 1948. 82 pp. Outlines procedures for finding out what to emphasize about safety and for integrating such teaching into the regular curriculum. Especially adapted for elementary-school principals to accompany the manual, *Much to Do About Safety.*

FRENCH, WILL, and RANSOM, W. L. *Evaluating the Curriculum for Provision for the Imperative Needs of Youth.* Washington 6, D. C.: National Association of Secondary-School Principals, 1201 16th St., N. W. 1948. 24 pp. 20c. Preprint from the April, 1948, BULLETIN of the Association. Score sheets for each of the ten Imperative Needs of Youth, itemized in analytical fashion, so that weaknesses and strengths in specific areas might be readily seen. Based upon the response of over 200 high schools which revealed their practices attempting to meet the various needs.

GIVENS, WILLARD E. *Our Teachers.* Washington 6, D. C.: NEA, 1201 Sixteenth St., N. W. 1948. 15 pp. Annual report of the profession to the public by the executive secretary of the NEA. Sketches progress made and steps yet to be taken to elevate the profession to its full stature and maintain the confidence and understanding of the public.

Good Health Is Good Business. Washington, D. C.: National Planning Association, 800 21st St., N. W. 1948. 48 pp. 25c. A summary of findings of a two-year study on medical-care programs in agriculture and industry. In lieu of recommending

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Group Growth and Educational Dynamics. Washington 6, D. C.: Dept. of Adult Education, NEA, 1201 Sixteenth St., N. W. 1948. 75c. Reprints from various journals dealing with the field of group growth and development. Stimulated by the National Training Laboratory in Group Development. Purposed to increase the sensitivity of leaders, educators, and social scientists to the import of the group in modern society and to increase and spread the knowledges and skills needed in group dynamics.

Guidance Pamphlet in Mathematics for High-School Students. New York 27: The National Council of Teachers of Mathematics, 525 W. 120th St. 1947. 25 pp. 25c. Final report of the Commission on Postwar Plans of the Council. Deals with the multiple uses of mathematics for personal, professional, trades, academic, civic, and other uses. Lists schools offering the doctorate in mathematics. Contains selected references on mathematical careers. A guidance pamphlet with an introduction for the student himself.

HUNSAKER, H. C. *Building Problems of Urban Universities.* Washington 6, D. C.: American Council on Education, 744 Jackson Place. 1948. 87 pp. A report of the Cleveland Conference, May 19-20, 1947, at which joint consideration of administrators, architects, government officials, and representatives of local planning boards was given the building problems peculiar to urban universities in the face of the anticipated influx of students and increased demand for adult education as economic and social conditions change.

Junior Certificate Examination. Cape Town, Cape of Good Hope, Africa: *The Education Gazette.* January, 1948. A list of successful candidates for the junior certificate granted upon the examination of 1947.

Junior College Terminal Education in Your Community. New York City 18: McGraw-Hill Book Co., Inc., 330 W. 42nd St. 1948. 12 pp. Free. Guiding principles and follow-up procedures and interpretation of an occupational survey to determine the type of junior college education in a local situation. Also contains a selected bibliography on the junior college.

Literature for Human Understanding. Washington 6, D. C.: American Council on Education, 744 Jackson Place. 1948. 62 pp. $1.00. Work of the Intergroup Education Staff in Co-operating Schools on new materials, approaches, and techniques for mobilizing school and community resources toward improving intergroup understanding.

MARTIN, T. D. *Ethics for Teachers.* (The NEA Code.) Personal Growth Leaflet No. 135. Washington 6, D. C.: NEA, 1201 16th St., N. W. 16 pp. 1c each for a minimum of 25. A brief history of the development of the code of the educational profession and the code itself, which touches relations to pupils, homes, civic affairs, and the profession.

National Science Teachers Association. *Packet No. IV of Science Information for Teachers.* Washington 6, D. C.: NEA, 1201 Sixteenth St., N. W.

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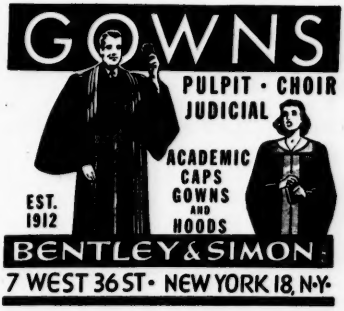

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Secret (Chrysler Coporation). Simple narrative of the development of the control over the atom.

Stainless Steels and Their Uses (Electro Metallurgical Co.). A brief summary of the major applications of stainless steel in industry.

The Story of Cellulose (E. I. duPont de Nemours and Co.). Describes the manufacture of cellulose and its chemical derivatives.

Studying Life to Protect Life (National Society for Medical Research). A series of pamphlets to inform the public relative to the benefits of biological research and teaching, and the necessity, humane character, and accomplishments of animal experimentation.

Teacher's Guide Book for a Program in Nutrition Education (General Mills, Inc.). A working plan, a list of projects, and suggested procedures for integrating nutrition education with the entire curriculum and raising the dietary standards of the community.

National Survey of Public Interest in Music. Chicago 4: American Music Conference, 332 S. Michigan Ave. 1948. The findings and tabulations representing a cross section of the populace reveal that the American people believe overwhelmingly that musical activity should be available to all—yet music is now for only the minority. A wealth of survey facts reflecting the status and opinion of both rural and urban America in regard to the desirability of musical opportunity and preference.

NEWSOM, N. W.; DOUGLASS, H. R.; and DOTSON, H. L. *Living With Others.* Gunnison, Colo.: Monarch Book Co. 1948. 225 pp. A detailed discussion of personal conduct and group responsibility in and out of school, addressed to the student. Supplemented with problems for consideration, suggested activities, and lists of sources to be consulted.

NEWSON, N. W.; DOUGLASS, H. R.; and DOTSON, H. L. *Making a Choice.* (Book 3—Grade 9 of Living and Planning Your Life Series). Gunnison, Colo.: Monarch Book Co. 1948. 248 pp. An exploration of the vocational opportunities in many fields, preceded by a discussion of the values of continued education, participation in extracurricular activities, contributions to school life, and good study methods.

The Principal and Audio-Visual Education. Washington 6, D. C.: The Dept. of Elementary-School Principals, NEA, 1201 16th St., N. W. 1948. 96 pp. $1.00. Gives the psychological basis and values of an audio-visual program and shows the principal's responsibility in adapting the program to the needs of the school. Includes concrete examples of successful experiences with the most common types of equipment.

Problem Solving. Detroit 2: Citizenship Education Study, 436 Merrick. The ability to think intelligently about serious social problems is a recognized characteristic of a good citizen in a democracy. This outline compresses the problem-solving technique into a series of unforgettable steps and suggests types and sources of

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problems to be considered at various maturity levels as an aid to developing citizenship.

Progress Report. Detroit 2: Citizenship Education Study, 436 Merrick. 1948. 18 pp. A report of the progress of a study instituted in 1945 in the Detroit Public Schools and Wayne University, made possible by a grant from the William Volker Charities Fund, to seek ways of increasing understanding, competence, and continued active participation in citizenship.

Progress Thru Research. Minneapolis, Minnesota: General Mills, Inc., 2010 East Hennepin Ave. An illustrated description of the activities of General Mills research laboratories for farm products, home appliances, and industrial machinery. Quarterly.

Public Health Service Publications. Washington 35, D. C.: U. S. Public Health Service, Federal Security Agency. 5 pp. A catalog of available publications issued from January to June, 1947, by the U. S. Public Health Service.

Publications available from the Children's Bureau, Social Security Administration, Federal Security Agency. Washington 25, D. C. Single copies free upon request.

Baby's Daily Time Cards. Itemized daily care schedule, month by month, with caution to avoid its rigidity in individual cases.

Breast Feeding. 21 pp. Not a substitute for a doctor's advice, but helpful to the mother in the care of herself and the subsequent feeding of her child.

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Mothers for a Day. 39 pp. Intended to aid social workers and civic leaders to set up and operate sound programs of child care in communal day-care or private home-care form to cope with the changing social pattern of rising living costs, disabled fathers, and working mothers.

Out of Babyhood into Childhood.

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Road to Good Nutrition. 52 pp. Nontechnical summary of essential factors of good nutrition for the child at various stages of growth. Prepared for teacher, school nurse, and social worker, as well as parent.

So You're Expecting a Baby. 29 pp. Commonsense advice to expectant mothers for their happy and safe adventure.

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Your Child from One to Six.

Publications which are available from the U. S. Government Printing Office, Washington 25, D. C.:

Annual Report of the Library of Congress (June 30, 1947). 181 pp. 1948. A statement by Luther Evans, Librarian of Congress, about what the Library of Con-

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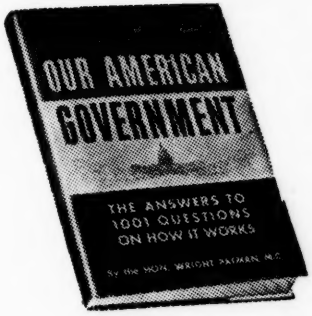

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Countries Participating in the European Recovery Program. 1948. 40 pp. Summaries of separate country studies of co-operating countries.

Digest of Unesco Program for 1948. (No. 3081). 1948. 9 pp. 5c. Plans for reconstruction, communication, education, cultural interchange, human and social relations, and natural sciences.

Essential Information on Atomic Energy. 1946. 94 pp. Printed for use of the Special Committee on Atomic Energy. Contains: Introduction by Senator McMahon (Chairman); Senate Resolution 179 creating the special committee to investigate the problems relating to the development, use, and control of atomic energy; text of the three-power agreement; British statements; chronological table of nuclear physics; glossary of scientific terms; bibliography of scientific and political background.

European Recovery Program. 1948. 69 pp. A report of the Committee on Foreign Relations on S. 2202, a bill to promote financial and economic assistance essential to a peaceful world.

Unesco and the National Commission (No. 3082). 1948. 17 pp. 10c. Basic documents and a list of officers and members.

The United States and the United Nations. 1948. 359 pp. 60c. A report by the President to the Congress for the year 1947.

Publications available from the Pan American Union, Washington 25, D. C.:

BERMAN, ROSE B. *Happy Name Day.* 9 pp. Mimeo. Free. A play based on a children's party as it might be held in Venezuela in observance of a child's "name day" or birthday. Utilizes the national dance, *el jorapo,* and the delightful custom of breaking the *pinata.* Elementary or lower junior high-school level.

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Publications available from the Department of State, Washington 25, D. C.:

Assistance to European Economic Recovery. 20 pp. 1948. 15c. A statement made by George C. Marshall before the Senate Committee on Foreign Relations on January 8, 1948, and the President's message to Congress on December 19, 1947.

Assistance to Greece and Turkey. (President's Second Report to Congress). 64 pp. 25c. A graphic explanation of the economic and military situations and the progress toward rehabilitation, with appendices of posters and charts distributed in Greece to give publicity to source of aid, biographic notes on key mission personnel, and notes exchanged between the governments.

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Korea's Independence. 1948. 13 pp. Free in limited quantities. Current developments in regard to Korea as a United Nations problem.

National Commission News. April, 1948. 10 pp. The deputy director of UNESCO Relations Staff describes 1948 projects; President Truman urges greater UNESCO effort; Dr. Eisenhower describes world growth of national commissions.

President's Report to Congress on United States Participation in the United Nations (No. 3024). 1947. Limited number without charge upon request to Department of State. 60c from U. S. Government Printing Office (25% discount on 100 or more).

Report of the Committee on Foreign Relations on Senate Bill 2202. Free.

The Second Year of the United Nations. (No. 3072) 1948. Free. The role of the United States as expressed in excerpts from *The United States and the United Nations.*

Sovereignty and Interdependence in the New World. (Publication 3054. Inter-American Series 35.) 1948. 30 pp. Comments on the Inter-American system with charts on the present system and what was considered at the Bogota Conference as well as on the interlinking of the hemispheric organization with that of the United Nations.

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Second National Conference on Citizenship. Washington 6, D. C.: NEA, 1201 16th St., N. W. 1948. 104 pp. 50c. Quantity rates. Addresses, conference reports, and panel discussions made in Boston in May, 1947, on strengthening the contributions of the various community agencies, the privileges and responsibilities of the individual, and the fiber of American citizenship, with a statement of the purposes and objectives of the conference.

STANTON, FRANK. *The Right of Radio to Editorialize.* 1948. New York: The Columbia Broadcasting System. Evidence indicating that the "Mayflower Decision" of the FCC seven years ago, stating that "the broadcaster cannot be an advocate,"

Child Growth Through Education

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abridged the right of free speech by broadcasters themselves, interpreted by the industry as distinct from individual news commentators or speakers.

STARRAK, J. A., and HUGHES, R. M. *The New Junior College.* Ames, Iowa: Iowa State College Press. 1948. 63 pp. $1.25. A review of the need for post high-school education and current attempts to meet those needs, with proposed principles and standards and a selected bibliography.

The Story of the British Commonwealth and Empire. New York: British Information Services, 30 Rockefeller Plaza. 1947. 48 pp. The British Commonwealth and Empire covers a quarter of the entire land surface of the earth; within it live more than a quarter of all the people in the world. How did this great empire start? What is happening to it today?

STRAYER, G. D., JR. *Planning for School Surveys.* Bloomington, Indiana: University Bookstore. 1948. 36 pp. 50c. Outline for school surveys, with points and forms explained and enumerated. A description of the survey services available to local Indiana school systems through the School of Education. Bibliography of pertinent readings. An appendix of facsimiles of survey forms.

Summary of Catholic Education (1945-1946). Washington, D. C.: National Catholic Welfare Conference, 1312 Massachusetts Ave., N. W. 1948. 35 pp. 50c. Statistical data on number of schools, instructors, and students at each level, with explanatory and historical remarks. A chapter on Catholic high schools and academies, and their increase during the past decade is of especial interest.

What Do School Men Think About the Consumer Education Study? Washington 6, D. C.: National Association of Secondary-School Principals, Consumer Education Study, 1201 16th St., N. W. 1948. An appraisal of the publications of the Consumer Education Study by educators in whose schools the materials have been undergoing clinical procedure. A selection of 50 letters, indicating the effectiveness of the consumer education text books in the classroom. In prospectus form, with an introductory letter of transmittal by the director, Thomas H. Briggs.

What's in Your Life Insurance Policy? New York City: Educational Division, Institute of Life Insurance, 60 E. 42 St. 1948. 16 pp. Free. Explanations of a life insurance policy and definitions of the provisions contained in the standard policy form, including settlement options, nonforfeiture values, dividends, policy loans, and special benefits.

YAHRAES, HERBERT. *Good News About Diabetes.* New York 16: Public Affairs Committee, Inc., 22 E. 38th St. 1948. 32 pp. 20c. A presentation of facts and figures on the number of diabetics, their life expectancy, occupational differences, rate of incidence in various social groups, economic loss, and facilities for treatment.

THE MAY, 1948, issue of *The Annals* published by the American Academy of Political and Social Science, 3457 Walnut Street, Philadelphia 4, Pennsylvania, is devoted to the subject "Peace Settlements of World War II" (approx. 285 pp. $2.00). This issue contains a foreword by the editor, Thorsten V. Kalijarvi, and twenty articles grouped as follows: "The Setting" (6 articles); "The Settlements" (8 articles); and "The Sequel" (6 articles). This volume is designed to provide a knowledge of the background factors affecting the peace settlements of World War II; the treaties effected and in prospect; and the political and economic outlook of the world.

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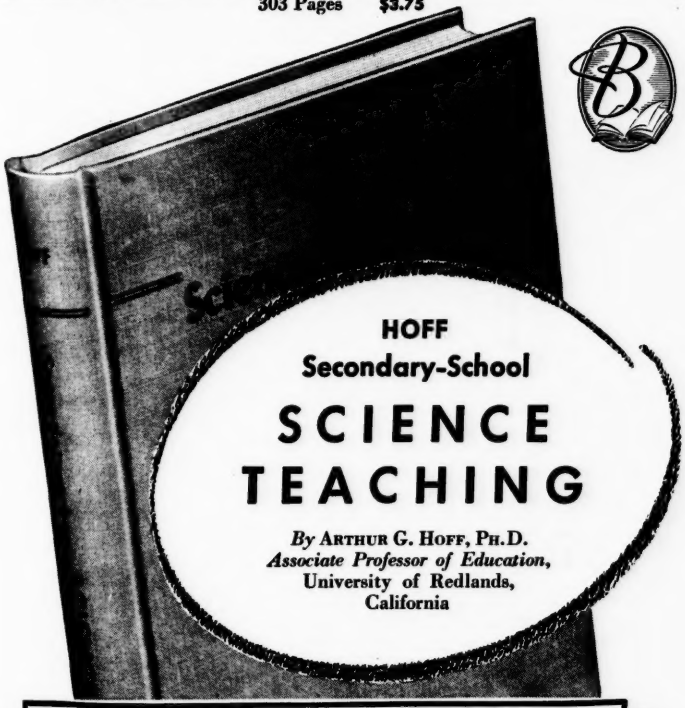

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NATIONAL ASSOCIATION OF STUDENT COUNCILS

Coolidge High School, Washington, D. C.

June 23-25, 1948

Who May Attend?

Student representatives and sponsors elected by regional, state, and district student council associations. All these delegates must come from schools that are members of the National Association of Student Councils.

How Many May Attend?

No more than six (6) students and two (2) sponsors from each regional and state association. No more than two (2) students and one (1) sponsor from student council associations smaller than a state association.

What Does the Program Include?

Four general assemblies with prominent speakers; twenty (20) discussion groups led by experts in the field; a banquet with Dr. Willis A. Sutton as speaker; a formal dance; tea with Mrs. Truman at the White House; sightseeing tours; a special tour of the U. S. Department of Justice and the F. B. I.; an opportunity to meet outstanding youth leaders of the country.

What Will Be the Cost for Each Delegate While in Washington, D. C.?

$1 registration fee for each delegate; about $7 for meals; and sightseeing tours, at reduced rates, are optional—will not be more than $6 for the three (3) specially arranged tours.

Where Will Delegates Be Housed?

Official student delegates will be housed without charge in the homes of Washington high-school students. No special arrangements are being made for sponsors except that some hotels have agreed to reserve a block of rooms for the sponsors.

FOR FURTHER INFORMATION, WRITE TO:

The National Association of Student Councils

1201 Sixteenth Street, N. W.

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